University of Alberta

Public Policy Processes and Getting Physical Activity into Alberta's Urban Schools

by

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To Mom and Dad.

Abstract

The objective of this research is to understand why Alberta's public decision-makers chose to implement daily physical activity (DPA) and why they have not supported walk-to-school (WTS) initiatives to increase physical activity in the school setting. Using a conceptual framework based on Kingdon's model of the policy process, this qualitative research included interviews with individuals within education and health. Factors causing the adoption of DPA were promotion of DPA by educators for two decades, awareness among public and professionals of the negative consequences of insufficient physical activity, and the appointment of a physician as Minister of Learning. WTS initiatives have not been supported because the problem has had a fragmented description that is not salient with decision-makers, research does not clearly link WTS to increased physical activity, and the groups promoting WTS are politically weak and lack a strong policy entrepreneur. Understanding the policy process is useful to health promoters.

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List of Abbreviations

A.S.R.T.S.	Active and Safe Routes to School
ACHSC	Alberta Coalition for Healthy School Communities
ATA	Alberta Teachers' Association
BMI	body mass index
CAPHERD	Canadian Association for Health, Physical Education, Recreation and Dance
DPAI	Daily Physical Activity Initiative
HPEC	Health and Physical Education Council
S.H.A.P.E.	Safe, Healthy, Active People, Everywhere
WHO	World Health Organization
WSB	Walking School Bus
WTS	walk-to-school initiative

CHAPTER I.

Introduction

Obesity: A Growing Health Threat

Global Situation of Overweight and Obesity

In 1997 a World Health Organization (WHO) consultation recognized that overweight and obesity represented a rapidly growing threat to the health of populations in an increasing number of countries worldwide (World Health Organization, 1998). Obesity was recognized as a disease that had become prevalent in both developing and developed countries, affecting both children and adults alike. Overweight and obesity were seen to be replacing more traditional public health concerns such as undernutrition and infectious diseases as some of the most significant contributors to ill health.

According to the WHO consultation, global obesity epidemic predictions for the decade following the release of the report were so serious that public health action was urgently needed. It was determined that merely concentrating on children and adults with a high body mass index and associated health problems would not stop the increasing number of people suffering from ill health due to obesity. A broader population approach was called for.

Canadian Situation

Overweight and obesity among Canadian children have grown at a significant rate (Canadian Health Network, 2004) and have been identified as problems by researchers working in the field of child health (Blair & Church, 2004; Canadian Health Network, 2004; Lau, 1999; Tremblay & Willms, 2000). In 1981, 15% of boys and girls were overweight, increasing to 28.8% of boys and 23.6% of girls in 1996 (Tremblay &

Willms, 2000). In 1998/99, one in three children in Canada aged 2 to 11 was overweight; half of these were considered obese (Statistics Canada, 2002). Willms (2003) states the prevalence of obesity for both sexes was approximately 10% in 1996, but the prevalence of overweight was somewhat higher among males, 33% compared with 26% for females. Tremblay and Willms (2000) provide further evidence that childhood obesity in Canada is on the rise and that the epidemic does not discriminate based on geographic or demographic characteristics. They also suggest that the progressive increase in childhood body mass index (BMI) throughout Canada seems to be more pervasive than among adults. According to Lau (1999), these changes represent an epidemic of obesity in Canada similar to those being seen in other industrialized countries around the world.

The odds of a child being overweight in Alberta in 1996 were 2.72 times that in 1981. Findings indicate that while the prevalence of overweight has increased significantly in every province, the rate of increase for the three Prairie Provinces (Alberta included) was somewhat lower than the rest of Canada (Alberta Health Surveillance, 2005). Despite this, a comparison of rural Alberta and urban Ontario high school students found that a significantly higher percentage of boys in Alberta's rural schools (17.6%) were overweight in comparison to boys in Ontario's urban schools (12.4%). Among girls it was found that those in rural Alberta were significantly more likely to be obese in comparison to urban Ontario girls (4.8% versus 2.3%) (Plotnikoff, Bercovitz, Loucaides, 2004).

Insufficient Physical Activity, Obesity, and Health

Hill and Melanson (1999) state that declines in average daily energy expenditure are a likely underlying cause of the obesity epidemic. The relationship between physical activity (energy burned) and calories eaten (energy intake) determines whether or not weight is gained (excess energy stored as fat) (DiPietro, 1995). Considering that only 44% of Canadian children were sufficiently active to attain health (Cragg, Cameron, Craig, & Russell, 1999), the increases seen in overweight and obesity are not unexpected.

Low levels of physical activity are one cause of obesity and a risk factor for many of the chronic diseases plaguing Canadians today including cardiovascular disease, type-2 diabetes, and some cancers (Centers for Disease Control and Prevention, 2004; Pate, Trost, Levin, & Dowda, 2000; Plotnikoff, Hotz, Birkett, & Courneya, 2001). These diseases are the result of lifelong processes that begin in childhood (Sallis et al., 1992). In addition to the diseases which manifest in adulthood, overweight and obesity in children are associated with more immediate health impacts. These include psychological and psychiatric problems, behavioural problems as well as the early onset of diabetes and other risk factors associated with cardiovascular disease (Reilly, Methven, McDowell, Hacking et al. 2003). According to the final report of the Romanow Commission, physical inactivity costs the Canadian health care system at least $2.1 billion annually in direct health care costs (Commission on the Future of Health Care in Canada & Romanow, 2002).

To reduce the obesity rates of children, physical activity interventions are recommended (e.g, Blair and Church, 2004; Zwiauer, 2000; Cragg, Cameron, Craig, Russell, & Beaulieu, 2001). Luepker (1999) summarizes in his assessment of the physical activity of American children that if children increased their physical activity the epidemic of obesity among youth in the United States would diminish or even disappear.

With obesity in Canada following a similar pattern (Brownell & Horgen, 2004) increased physical activity among school-aged children could produce a similar result.

The magnitude of the obesity problem favours interventions at a population level (Doak, Visscher, Renders & Seidell, 2006) which are best offered to children through the school system (Wechsler, Devereaux, Davis & Collins,2000). Recommendation #23 of the Romanow Report (2002) calls for increasing the level of physical activity among children by "increasing the time devoted to physical education and sport in schools" (p. 176). In the United States the national health objectives for 2010 take a different approach. They include as an objective to increase the proportion of trips to school made by walking and biking (U.S. Department of Health and Human Services, 2000).

Schools are institutions that are directed by public policy that is made through complex processes involving several levels of government. Analysis of the processes that interact to form public policy surrounding physical activity in Alberta's schools is the focus of this thesis because these processes can have a significant impact on the physical activity levels of children in the school environment .

Physical Activity in Alberta's Urban Schools: A Synopsis

To understand the policy processes that influence physical activity within Alberta's schools, this thesis examines the case of schools within the two largest cities in Alberta, Canada - Edmonton and Calgary. School boards in the province are empowered to operate schools by the School Act which is administered by the Minister of Education (formerly the Minister of Learning). Boards hire principals to administer the operations in each school. These school administrators are responsible for hiring the teachers and other staff at the schools and administering other aspects of the school budget. They also provide leadership to the teachers regarding their implementation of the curriculum prescribed by Alberta Education. The School Act also calls for each school to form a school council that is made up of parents and school staff (Government of Alberta, 2001). The council works with the principal on issues of concern to members of the school community.

The Alberta physical education curriculum suggests that physical education and health be allocated 10% of educational time. This is approximately 170 minutes per week. While the curriculum does not specify which activities must be offered, it suggests over 100 types of activities that can be taught to reach the specified outcomes. Most elementary schools offer some kinds of physical activity to students through extra-curricular programs. These are often offered over the lunch hour or before or after school and are organized and/or supervised by teachers, parents, paid instructors or community programs. Common examples of extra-curricular activities offered at elementary schools are running, skipping, gymnastics, intramural sports such as floor hockey, basketball, or soccer, tag games, snowshoeing, or tobogganing. Virtually all of these programs are organized within the individual school communities and therefore vary from school to school and from year to year within schools. While usually a variety of activities are offered in an individual school, not all children participate. Activities offered may not be of interest to all students or they may choose to participate in clubs and programs that do not offer physical activity.

Active transportation to school in the form of walking or bicycling is another source of activity related to the school day. No data exists quantifying the numbers of trips to and from schools in Alberta that are made on foot or bicycle. However, there has been a trend in most developed countries for the number to have declined from previous decades (Louie, Sanchez, Faircloth, & Dietz, 2003).

Active transportation and other outdoor activities are impacted by the climate. Edmonton has a climate with temperatures ranging from an average daily maximum in January of –7.3 C to 22.8 C in July and snow depth at the end of January averaging 21 cm. Calgary's climate is slightly milder than Edmonton's with an average daily maximum in January of –2.8 C and 22.9C in July. Snow depth at the end of January in Calgary averages only 5 cm (Environment Canada, 2007). While the average temperatures are quite manageable for most people, it is the extremes that interfere with outdoor activities. Luckily, these are usually confined to no more that ten or fifteen days per year.

Schools are central in the lives of Alberta's children. Research on reducing obesity in children calls for increasing the amount of physical activity children attain on a regular basis and the literature states that the school setting is an ideal place for this to occur (e.g., Tudor-Locke et al. et al., 2001; Stone, Mckenzie, Welk, & Booth, 1998). The policy environment of schools impacts the amount of physical activity students receive in the school setting. Curriculum, facilities, staffing or the use of physical education specialist teachers, and parent participation in school activities are all areas of policy that can impact the amount of physical activity students receive. Policies in these areas can act as barriers or facilitators of physical activity. This research investigates the policies that exist in these areas. The sources of data used include published documents and interviews with key individuals within relevant organizations. The data are analyzed using a conceptual framework based on the literature of policy networks and the policy processes active within them. Policies which are barriers or facilitators to various types of physical activities in the school setting are identified. The workings of the policy processes explain why some types of physical activity are favoured within Alberta's elementary schools while others are not. The thesis concludes with an alternative framing of the issue that may increase the potential for walk-to-school programs to be implemented.

Structure of the Thesis

Chapter 2 of this thesis reviews the literature relevant to various types of physical activity that occur within the school setting. Particular emphasis is placed on walk-to-school programs including one called the Walking School Bus and on daily physical activity initiatives.

Chapter 3 sets out the conceptual framework used in this thesis. It describes the literatures upon which it is based and how they link together to give insight into the situation at hand. Following the statement of the research question, the research methodology used to gather and analyze data is described.

Chapter 4 outlines the various players in the policy community relating to physical activity in the school setting. Key characteristics of each policy actor and the resources that they have at their disposal are highlighted. The relative positions of the key policy actors are diagramed and the key network interactions are discussed.

Chapter 5 analyzes the policy processes that have shaped the current policies relating to physical activity in Alberta's urban elementary schools. The analysis focuses on the processes that allowed the Daily Physical Activity Initiative (DPAI) to be adopted into schools very quickly and the barriers that have blocked the adoption of walk-to-school initiatives like the Walking School Bus program.

Chapter 6 discusses public policy challenges that may face DPAI in the coming years. It goes on to describe an alternative framing of the issue that may make walking to school a more salient solution. The discussion then broadens to describe the key understandings about the policy process that would be useful for practitioners working for the adoption of other healthy public policies. Strengths and limitations of the study are discussed prior to a hopeful conclusion.

CHAPTER II.

Review of the Literature

Body Mass Index

Body mass index (BMI) is a number calculated from a person's weight and height and is a reliable indicator of body fatness for people (Centers for Disease Control and Prevention, 2006). Obesity in adults is defined as a BMI of 30 or higher (Centers for Disease Control and Prevention, 2007b). When BMI is calculated for children and teens, the BMI number is plotted against BMI-for-age growth charts (for either girls or boys) to obtain a percentile ranking (Centers for Disease Control and Prevention, 2007a). The percentile indicates the relative position of the child's BMI number among children of the same sex and age to determine their weight status category. The 'healthy weight category' includes children in the 5th to 85th percentiles, the 'at risk of overweight category' includes children in the 85th to 95th percentiles and the 'overweight category' includes children in the 95th or greater percentile.

Health Impacts of Pediatric Obesity

In 2003 Reilly et al. published the first review that systematically searched and critically appraised the substantial literature on the health impact of obesity in children aged 1 to 18 years. A total of eighty-two papers published between January 1981 and December 2001 met their criteria for inclusion into the review. Of the eighty-two studies appraised, sixty-eight were determined to have a high-quality methodology and were used to determine the following conclusions. Pediatric obesity is likely to be a major cause of ill health in adulthood, but it also contributes substantially to illness in childhood. Unfortunately, there is a widespread perception among health professionals that obesity in childhood is relatively unimportant (a largely cosmetic problem), or that it matters only in the context of the risk it provides for later (adult) health. This overlooks the fact that childhood obesity has significant adverse effects on health in childhood. Obese children are more likely to experience psychological or psychiatric problems than are non-obese children. Low self-esteem and behavioural problems were commonly associated with obesity in children. Thirty-one high-quality studies assessing cardiovascular risk factors consistently showed associations between obesity and most cardiovascular risk factors: high blood pressure, abnormal levels of blood lipids, heart abnormalities, abnormalities in the functioning of the lining of the blood vessels, and insulin resistance. "It is well established that childhood obesity (and central adiposity) have adverse effects on the cardiovascular system which are similar to those well known in adults" (p. 750). Five studies reported an association between obesity and asthma in children. Additionally, three studies found an association between pediatric obesity and low grade systemic inflammation, one study found a two-fold risk of type 1 diabetes among obese children and one study found an association between obesity and foot abnormalities in children.

In addition to the short-term consequences listed above, Reilly et al. found many longer-term consequences. Obesity in adolescence/young adulthood has adverse effects on social and economic outcomes in young adulthood in such areas as income and educational attainment. Numerous studies showed a tendency for childhood obesity to persist into adulthood and adolescent obesity is probably even more likely to persist into adulthood. These studies, most of them older, typically suggest that around 40 – 70% of obese pre-pubertal children will become obese adults. Because of their age, these studies underestimate the magnitude of the effect for modern children now living in more 'obesogenic' environments. According to Reilly et al., obesity-mediated cardiovascular morbidity in adulthood, which can have its origins in an obese childhood, should be reflected in increased cardiovascular morbidity among adults in the future as the current generation of obese children grow up.

Choudhary et al.'s 2007 review find more recent data upholds the findings of Reilly et al. They find that diseases associated with childhood obesity include cardiac, respiratory, gastrointestinal, gynaecologic, musculoskeletal, neurologic and vascular disorders. Of particular concern is pediatric metabolic syndrome (a group of risk factors in one person that includes obesity, insulin resistance, hypertension, and other metabolic abnormalities) that is present in nearly half of all severely obese children and type 2 diabetes. Children who develop obesity-related diabetes face a much higher risk of co-morbid diseases, especially kidney failure, by middle age and death from cardiovascular events, when compared with adult onset of diabetes. The evidence of short-term and long-term effects of obesity presented by Reilly et al. and Choudhary et al. makes a strong case for greater efforts directed at the prevention and treatment of childhood obesity.

Increasing Physical Activity of Children in the School Setting

Blair and Church (2004) state that "physical activity promotion should be a foundation of clinical therapy and public health policy, whether to promote health or weight control" (p. 1233). As a means of controlling weight and abating the onset of chronic disease processes in children, increasing physical activity is preferable to controlling or restricting food intake as this can have a detrimental effect on normal growth (Zwiauer, 2000). As well, physical activity offers numerous other physical and mental health benefits besides weight control (Warburton, Nicol, & Bredin, 2006). Warburton et al. find incontrovertible evidence that regular physical activity contributes to the primary and secondary prevention of several chronic diseases and is associated with a reduced risk of premature death. Chronic diseases that are shown to be prevented by physical activity include cardiovascular disease, diabetes, some cancers, hypertension, obesity, depression and osteoporosis. Furthermore, there appears to be a graded linear relation between the volume of physical activity and health status, such that the most physically active people are at the lowest risk (Warburton et al., 2006).

Because most children attend school close to 200 days per year, the school offers a good setting in which to incorporate physical activity (Cragg, Cameron, Craig, Russell, & Beaulieu, 2001; Wechsler, Devereaux, Davis & Collins,2000). Children attending school have many opportunities for physical activity in their day. Physical education class is one obvious source but many others exist as well. Recesses and lunch breaks get children outside and allow for all types of active play. Some teachers use movement and physical activities while teaching subjects such as music, science, social studies and even math. Field trips, special events, fundraising activities and other extra-curricular activities often include physical activities. Walking or bicycling to and from school can also be a regular source of activity connected with the school day.

Doak et al. (2006) attest that environmental factors should take precedence in the prevention of obesity because while some gene-environment interactions may contribute to childhood obesity, it is the environment that has changed and contributed to the increase in obesity rates. As such, population-based prevention programs that can be applied on a large scale, are sustainable and are preferably multi-sectoral are the type Doak et al. deem to be the most preferable. Amongst these are school-based programs because they have the intention to treat all children within the community (Doak, Visscher, Renders & Seidell, (2006).

A systematic review conducted by Jago and Baranowski (2004) found that non-curricular approaches to increasing physical activity in children and youth have been successful in increasing physical activity in the school setting. While these interventions where not linked to the curriculum because of the perceived increase in pressure for students to achieve on academic tests, they were connected to the school environment. Interventions that occurred in school during break periods were consistently effective at increasing physical activity of students while an intervention that involved physical education classes and break periods was also effective.

Walk-to-School Programs

Given that the amount of time recommended to be spent on physical activity for children to attain health benefits is 90 minutes per day, options outside of the school day need to be explored (Stone, Mckenzie, Welk, & Booth, 1998). Some researchers see the solution to the obesity epidemic in the industrialized world in the promotion of active living (Blair & Church, 2004; Hill J.O & Melanson E.L, 1999; Lavizzo-Mourey & McGinnis, 2003; Luepker, 1999; Lumsdon & Mitchell, 1999). The concept of active living involves increasing the amount of energy used in day-to-day tasks. Increasing active transportation, that is, exchanging motorized transportation for walking or bicycling, is one means of achieving a more active lifestyle. According to Mason (2000), brisk walking on all or most days of the week provides preventive and protective benefits for a whole range of health conditions related to obesity (including cardiovascular disease, diabetes, depression, and osteoporosis). Walking should be considered an integral part of everyday life and strategies that motivate and empower individuals to walk should be pursued (Lumsdon & Mitchell, 1999). It is an area that is receiving increasing attention from both practitioners and researchers.

There has been a broad call in the literature for further work to be done at the level of public policy to increase physical activity. Some researchers have identified active transportation to school and the policies supporting it as an area for further research for increasing physical activity in children (Cragg et al., 2001; Stone et al., 1998; Tudor-Locke, Ainsworth, & Popkin, 2001). The identified target for change is policies that can affect children's opportunities for active commuting, including government transport policies and policies of the municipality promoting safe and convenient walking and cycling routes (Tudor-Locke et al., 2001). Strategic planning documents from both Canada and the United States call for the use of policies to encourage active transportation to school as a means of increasing physical activity in children at the population level (Cragg et al., 2001; U.S. Department of Health and Human Services, 2000).

However, little has been done to implement these strategies. Tudor-Locke et al. (2001) state that active commuting to school represents a potential source of continuous moderate activity, the value of which has been largely overlooked because active commuting has been regularly ignored in surveys of physical activity. Therefore, little evidence exists supporting or refuting its benefits. They attest that it has been ignored likely because of the bias created by the dominance of the car in our society.

A number of barriers, both real and perceived, prevent parents from choosing active transportation as the mode of transporting their children to and from school. These include the distance to the school, traffic danger, adverse weather conditions, crime danger, opposing school policy, community design, and exposure to bullying (Centers for Disease Control, 2002; Tudor-Locke et al., 2001). Perhaps these barriers account for the downward trends in the numbers of children walking to school that have been identified through research in England and the United States (Louie, Sanchez, Faircloth, & Dietz, 2003) and anecdotally in Canada.

One program that addresses a number of these barriers is the Walking School Bus (WSB) program. The WSB is a unique program that takes place outside of school instructional hours, yet bridges between the school and community settings. The WSB program is usually formed by a group of parents who create a roster and take turns escorting groups of children walking to and from the neighbourhood school along a designated route. Suggested maximum length for the routes is 1.5 km, or a half-hour walk. The various WSB programs are replete with suggestions for making the activity fun and for garnering support from families and schools. Documented implementation of WSB programs has focused exclusively on community-initiated, parent-supported volunteer organizations. The WSB is an initiative that operates in a number of countries around the world (Tudor-Locke et al., 2001) including Australia, Canada, England, New Zealand, and the United States. Mackett et al. (2003) credit the WSB concept to David Engwicht of Australia who first proposed the idea in his 1993 book entitled *Reclaiming Our Cities and Towns: Better Living with Less Traffic.* After first being adopted in England it has become perhaps the most widely used program promoting active transportation to school. According to Kearns et al. (2003) "the speed with which the (WSB) concept has diffused outwards from England suggests a pent-up demand for walking and a willingness among parents to lend their support to a safe, disciplined alternative to car travel" (p. 290).

Many benefits of the WSB have been identified. The children enjoy the structured walk to and from school taking pleasure from the exercise, environmental exploration, and social interaction. It can result in increased social cohesion in a neighbourhood (Kearns, Collins, & Neuwelt, 2003). Anecdotally, WSBs have caused reductions in traffic arriving at schools and these reports have been proven by research conducted in at least one school (Kearns et al., 2003). The WSB concept is popular with local authorities because it is cheap, can be set up quickly, and is a visible sign that the local authority (if it is involved) is encouraging children to be more active and to use an alternative form of transport (Mackett et al., 2003). The WSB is a program that can reduce barriers to walking to school such as fear of crime and traffic dangers that some families face when children walk to school (Go for Green, 2001).

According to Tudor-Locke et al. (2001), "the fact that children must travel to school in some manner, day after day, should be viewed as a unique opportunity to impart the multiple benefits of physical activity" (p. 312). Apparently, the WSB is the type of program Tudor-Locke et al. find is needed. They believe that to increase physical activity in children the "best approaches to intervention would attempt to maximize the health benefits of regular commuting to school, while at the same time alleviating parental safety concerns" p. 312 (Tudor-Locke et al., 2001). Unfortunately, they also found that within the school setting, assessment and promotion efforts for children's physical activity have focused on physical education classes rather than on active transportation to and from school.

One potential problem facing proponents of the WSB program is that it has primarily been implemented in middle class neighbourhoods where parental motivation and awareness for health promotion initiatives tends to be higher and injury rates lower. Organizers may face more obstacles when trying to implement the program in neighbourhoods with lower socio-economic status (Kearns et al., 2003) where parents may work differing shifts or hold multiple minimum wage jobs.

Kearns et al. (2003) find, ironically, that "the implications and outcomes of school-related travel are under-researched, despite their centrality to the lives of children, parents and teachers" (p. 290). Similarly, Mackett points out there seems to be little evidence of systematic evaluation of WSB programs to see how effective they are and whether they represent efficient use of resources. Tudor-Locke et al. (2001) call upon researchers to adequately evaluate existing and emerging efforts to increase children's physical activity through programs that promote active transportation. Clearly, there is a need to better understand the situation surrounding active transportation to school.

Policy Documents Outlining Physical Activity in Alberta Schools

Each school year Alberta Education produces a Guide to Education: ECS to Grade 12 (Alberta Education, 2006b). This document includes policies, procedures and organizational information required to operate schools. Since the 1990s this document has recommended that instruction in health and physical education be allocated 10% of instructional time for students in grades one to six. This is equivalent to approximately 170 minutes per week.

In November of 1999, then-Minister of Learning, Lyle Oberg, announced a revised curriculum for physical education would be introduced in Alberta schools the following September (Alberta Education, 1999). The new curriculum was to focus more on active lifestyles and a wide range of physical activities that young people could maintain into their adult lives. In keeping with this new direction, the Alberta Commission on Learning report released in 2002 recommended that children should be encouraged to be physically active in a wide variety of ways. Some children are less interested in sports and participation drops off as the students progress to junior and senior high school. The commission was pleased with the new direction the revised curriculum was taking physical education and felt it would benefit children. The new curriculum did not change the suggested number of minutes for which physical education was offered.

In September of 2003 Lyle Oberg announced the Daily Physical Activity Initiative (Alberta Education, 2006a). This program of 30 minutes of daily physical activity, "linked to the acquisition of the knowledge, skills and attitudes of the current physical education program" (p. 1) became mandatory in Alberta schools in September 2005 for students in grades 1-9 and in September 2006 for students in grades 10-12.

As the review of the literature indicates, the problem of overweight and obesity in our society and its contribution to the onset of major chronic diseases is significant. Controlling these conditions in children by implementing a population-based intervention to increase physical activity could reduce the burden of chronic diseases in future years. As many of the behaviours that contribute to chronic disease begin in childhood, intervention at this stage of life is critical. Since most of the suggested interventions need supportive public policy to be effectively implemented, understanding the facilitators and barriers to effective public policy around this issue is important. This research, investigating why certain interventions have been adopted by decision-makers rather than others, illuminates the nature of these facilitators and barriers. Results of this study will be useful in guiding future policy development and advocacy efforts for other interventions in the fields of childhood physical activity, other school-based health promotion interventions, and the general development of healthy public policy.

CHAPTER III.

Methodology

Conceptual Framework

The conceptual framework used in this thesis is based on the political science literature relating to policy communities, policy networks, and public policy processes. A. Paul Pross (1992), Coleman and Skogstad (1990), and Smith (2005) describe the composition and nature of policy communities. The "policy community" concept helps to identify who the actors are in the policy process surrounding an issue and what their roles are likely to be. Policy networks further describe the actors based on the interactions that take place between them. Again Pross offers insight into this as do Skogstad and Coleman. Skogstad and Coleman and Lindquist (1992) provide a nomenclature and description of the types of policy networks that form within policy communities and the power dynamics that drive them in the policy processes. Two views of the public policy process are used to describe how issues can rise on the political agenda and be resolved by the implementation of a policy solution. Howlett and Ramesh (1995) offer a breakdown of the policy cycle based on the problem-solving model. While their view of the policy cycle offers a basis for thoroughly considering all possible occurrences, it is somewhat more linear than the real world events experienced in this situation. Kingdon (1995) views the policy arena as being comprised of three streams: problems, policies, and politics, each largely independent of each other and developing by its own dynamics and rules. As such, Kingdon's model is used to explain the more complex series of events that was witnessed. By using these models, one is able to explore and understand both the "who" and the "how" of the public policy process. This leaves for explanation the question of "why". To understand why things happen as they do this thesis explores the interests, ideas, and institutions that are involved. Interests, ideas, and institutions provide the motivations, directions and limitations of the policy process and complete the analysis of the public policy process.

Public Policy

Public policy, as defined by Pal (2001), is "a course of action or inaction chosen by public authorities to address a given problem or interrelated set of problems" (p.2). Public policy is central to a healthy democracy. It provides guidance for government officials and accountability links to citizens. Actions grounded in policy are assumed to be thought through in terms of the problem they are addressing. Visible and measurable policies become tests of the government at election time. Policies provide a framework within which a government can develop a plan from which to work. Policies tend to address a set of interrelated problems that may have contradictory solutions rather than a single problem. A framework of policies is a guide to a range of actions in a given field. The framework can be applied to new situations as they arise. Public policy is a means of dealing with a problem or opportunity meaning that policy is not an end in itself but a tool to manage a problem of concern to the community. Deliberate inaction on an issue that has been raised for consideration is an element of policy as well. Only those with legitimate authority to impose guidelines for action can be considered policy-makers. In a democracy, this is restricted to elected officials in concert with advisors from the higher levels of administration. Some actions are so far down the chain of implementation that they are no longer considered policy, rather they are simply administrative decisions.

Policies deal with public problems rather than organizational routines or structures (Pal, 2001).

Policy Communities

The actors involved in the public policy process surrounding an issue are the members of the issue's policy community. Coleman and Skogstad (1990) define a policy community as "all the actors or potential actors with a direct or indirect interest in a policy area of function who share a common policy focus and who, with varying degrees of influence, shape the policy outcomes over the long run" (p. 25). Pal defines a policy community as "the actors in a policy network… who share at least some common language and conceptual reference points… on the issue" (Pal, 2001, p. 267). According to Pross (1992), policy communities are "groupings of government agencies, pressure groups, media people, and individuals, including academics, who, for various reasons have an interest in a particular policy field and attempt to influence it" (p. 265). Policy communities are made up of individuals, pressure groups, cabinet and central policy agencies, lead agencies and government. The concept of the policy community derives from the neopluralist approach to the relationships between group actors and the state. Neopluralists see the state as potentially having an active role in shaping the policy agenda by interacting with organized interests (Smith, 2005).

The nature of a policy community is crucial both to policy development and to implementation of public policy. In recent years, policy communities have become more important to understanding policy processes because implementation of public policy has become less top-down and more dependent on partnerships. Smaller and leaner governments depend on policy communities for both policy advice and assistance with implementation (Pal, 2001). This need has been exacerbated by the increasing complexity of society and government, the importance of expert knowledge and information, and shifts in class structure, values, and social groups. As a result, governments today work increasingly in networks to design and implement policy solutions.

Pross (1992) finds that most policy communities can be divided into the 'subgovernment' and the 'attentive public'. The subgovernment includes large institutions, groups, and core government agencies. Members of the subgovernment gain their power because of their expertise on the issue of concern upon which the government needs to draw. It is within the subgovernment that decision making takes place.

Pross sees the members of the attentive public as outsiders whose participation in decision making the members of the subgovernment work to limit. The attentive public includes individuals as well as pressure groups and government agencies whose interest in the issue of concern is "keen but not acute enough to warrant breaking into the inner circle" (Pross, 1992, p. 265). While lacking the power of the subgovernment, the attentive public still plays an important role in policy development. The attentive public often convenes conferences and other learning opportunities at which officials at various levels can interact with those who have been studying the issue of concern. Theories and interests are shared providing input with which government can make changes to keep policy in line with the current circumstances. Thus, as Pross describes, "the main function of the attentive public is to maintain a perpetual policy review process" (p. 266).

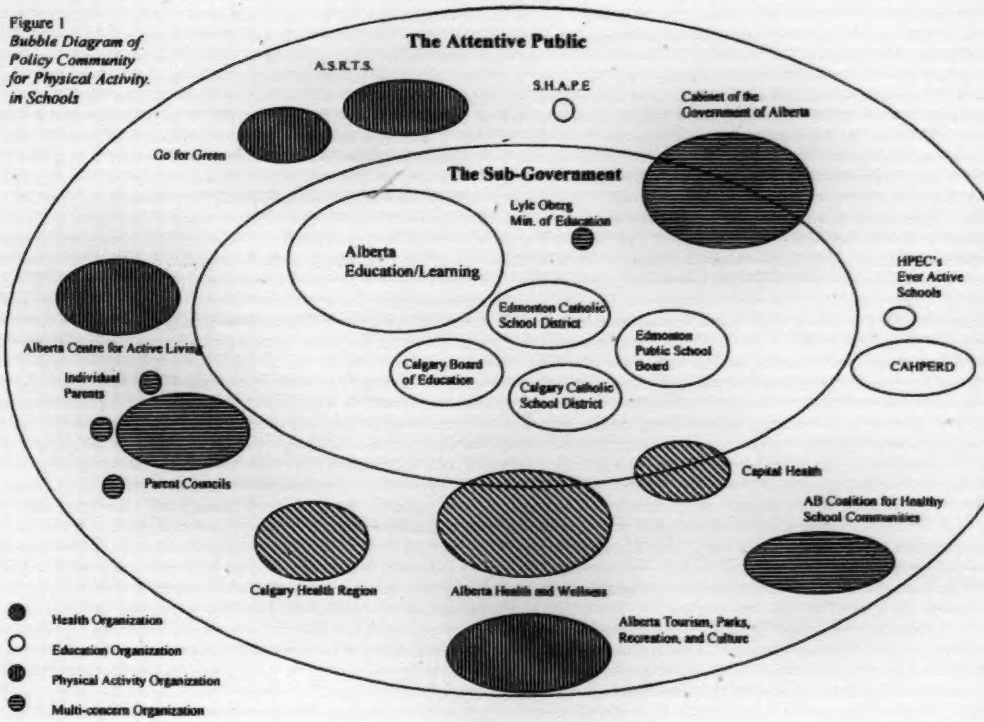
The subgovernment is most comfortable processing routine policy issues and attempts to keep the process from straying from the routine. While the subgovernment endeavours to confine its business to relatively routine processes, occasionally an external force will move processes away from the habitual. Economic circumstances, new technologies or changing public concerns can spark this move. If controversy develops and new issues emerge, policy debate can broaden, bringing other players into the decision-making realm. Higher political levels, including cabinet, can become involved often resulting in substantial changes in policy.

Pross illustrates a policy community by use of a bubble diagram with the subgovernment members at the centre surrounded by members of the attentive public. Using the format described by Pross, the policy community with an interest in physical activity in Alberta's urban schools appears in Figure 1. Pross argues that policy communities are constantly in flux, so this diagram is representative of the policy community only at the time this research was conducted. Attributes of the policy community members are discussed in chapter 4.

Policy Entrepreneurs

One type of individual within a policy community is the policy entrepreneur. A policy entrepreneur is as an advocate who is willing to invest his or her resources such as time, energy, reputation, and more to promote a position in return for future anticipated gain in the form of material, purposive or solidary benefits (Kingdon, 1995). They seek to introduce policy innovations (Mintrom, 2000). Individuals in any number of positions within the political system can be policy entrepreneurs. They may hold either a formal or informal position either within or outside of the formal structure of the system. Elected officials, bureaucrats, lobbyists, interested citizens can all take on the role of a policy entrepreneur.

Figure 1
Bubble Diagram of Policy Community for Physical Activity in Schools


The Attentive Public
A.S.R.T.S.
S.H.A.P.E
Cabinet of the Government of Alberta
Go for Green
The Sub-Government
Lyle Oberg Min. of Education
Alberta Education/Learning
HPEC's Ever Active Schools
Edmonton Catholic School District
Edmonton Public School Board
Alberta Centre for Active Living
CAHPERD
Calgary Board of Education
Calgary Catholic School District
Individual Parents
Parent Councils
Capital Health
AB Coalition for Healthy School Communities
Calgary Health Region
Alberta Health and Wellness
Alberta Tourism, Parks, Recreation, and Culture
Health Organization
Education Organization
Physical Activity Organization
Multi-concern Organization

The goal of all policy entrepreneurs is to have their issue placed on the policy agenda of decision-makers and to have their preferred policy option adopted. The strategy employed to accomplish this largely consists of making convincing arguments about the causal relationship between government activities and real-world outcomes. According to Mintrom (2000), policy entrepreneurs introduce innovations that are deliberately designed to lead or force people to break out of a particular routine and come to a new understanding of their environment. While the innovations may lead to fundamental change occurring within a brief period of time, the innovations can also be incremental in nature. Either way, they represent a substantial change in the way things are done.

Perhaps the most important role of the policy entrepreneur is the hooking together of previously separate streams. They use their skills to match solutions to problems, proposals with political momentum or policy events to policy problems. In some cases they are able to bring all three streams together at once. This is critical because it is when the streams are coupled that an issue is best able to rise on a policy agenda (Kingdon, 1995). The actions of the policy entrepreneur are key but are also only one of multiple sources responsible for causing an issue to rise on the agenda. Both structural changes in the environment and the role of the individual play an important part and it would be erroneous to attribute an occurrence to one without considering the role of the other.

A policy entrepreneur uses both advocacy and negotiation to advance policy streams. Advocacy is key to softening the policy stream preparing it for coupling while negotiation is the tool a policy entrepreneur employs in brokering a critical coupling of streams. A single person can make a huge difference in the advancement of an issue.

Whether it is at the local community level or within the legislature, an individual can influence the direction and speed with which action is taken on an issue. These individuals are called champions, policy entrepreneurs or policy opportunists depending on the organizational level at which they are working and the manner in which they conduct their efforts.

A policy entrepreneur has one or more qualities that make his or her voice heard by the decision-makers. According to Kingdon (1995) a policy entrepreneur may have expertise on the issue, empowerment to speak for others as is the case with leaders of a pressure group and/or he or she may hold an authoritative decision-making position such as being the cabinet minister responsible for an issue. Secondly, a policy entrepreneur has political connections or negotiating skills contributing to their political savvy. Thirdly, a policy entrepreneur has the persistence to work over time at raising the profile of his or her favoured proposal. He also has a defining set of characteristics allowing him to effect change. High levels of social perceptiveness characterize policy entrepreneurs. He is interested in listening to others and identifying their needs yet he does so without being drawn into conventional thinking about the issue, thus he can be innovative. He must be able to perceive the broader concerns facing policy makers at the time they are promoting action on their issue. He must be able to see where his issue fits within the scope of issues with which the policy makers are dealing. Policy entrepreneurs must develop an understanding of how his particular concerns complement or contradict other issues and use this understanding to shape his policy options, thus improving the likelihood his idea will be given serious consideration (Mintrom, 2000).

Some influential individuals are described as policy opportunists rather than policy entrepreneurs. Weissert (1991), in writing about the effect of policy entrepreneurship on a legislator's standing, compares the characteristics of policy entrepreneurs versus policy opportunists. Policy entrepreneurs have a degree of expertise about the issue. This expertise has been developed over time either through the background and formal education of the legislator or through working on the issue in their political career, perhaps as a minister of the department that is responsible for the topic. In either case, the policy entrepreneur is perceived to have worked at the acquisition of the expertise. Policy entrepreneurs are also distinguished from policy opportunists by the persistence with which they have championed the particular issue they favour. Policy entrepreneurs are recognized for having worked over time to inform their colleagues about their issue of concern. They show persistence in acting as experts about the topic and, in Kingdon's terms, work to 'soften' the system so that when a policy window opens they are prepared to push their policy option through. Antithetically, a policy opportunist latches onto an issue only as he or she sees the policy window opening. This may be the course of action taken by a re-election-seeking politician who, rather than spending the time and effort required to learn about the issue, will associate himself with an important issue in an effort to raise his own profile.

Pressure Groups

According to Pross (1992), pressure groups or interest groups are organizations whose members act together to influence public policy in order to promote their common interest. A primary characteristic of a pressure group is its efforts to persuade government to pursue the policies it advocates. The power of a pressure group comes from the force of public opinion, a threat of economic sanctions and the logic of a well-prepared argument. Since the creation of the Canadian Charter of Rights and Freedoms, some pressure groups have used the courts to decide their issue, circumventing elected policy makers. While pressure groups desire to influence power, they do not seek to exercise the responsibility of government. This makes it possible for pressure groups to maintain their focus on the specific interests of their small group rather than diluting their position to appeal to the mass public as would be required to govern. Governments could not accomplish their duties without pressure groups. Pressure groups are links between government and the people. Pressure groups transmit demands from sectoral constituencies to public authority and vice versa. In addition to transmitting demands, pressure groups offer a means through which government can test opinion. The feedback a government receives from a pressure group can be an indicator of changes within the broader social system. Using this information, government can make decisions that are likely to be well accepted, thereby adding to political stability.

The Canadian situation sees interactions happening in the dyad between organized groups and bureaucracies in each policy area. Pross (1992) believes policy decisions are being made at the level of bureaucracies interacting with interest groups actors. These decisions are then recommended to ministers and cabinet as the appropriate solution to the issue at hand. Most policies do not reach top-level decision-makers for discussion except as part of a larger package of policies. In fact, members of the sub-government find that political interference from above or public debates in the media disrupt policy relationships under normal circumstances (Smith, 2005). This is manifested in the sub-government's efforts to limit the input of the attentive public on decision-making.

However, despite efforts of the sub-government to remain closed and stick with the routine, in some circumstances the debate spills over and involves the attentive public (Pal, 2001). This is happening more so in policy communities that are open to pressures of the attentive public such as municipal government. Public policy in some areas is very highly specialized, detailed and complex. Given this situation, it is beneficial that debate is confined to the most knowledgeable and interested parties. While this may be viewed as undemocratic, it facilitates policy discussion that would become impossible if open to the broader public (Smith, 2005).

Pressure groups range from those that are highly organized institutionalized groups to those that are more loosely formed and flexible issue-oriented pressure groups. The policy process is very bureaucratic so that the most successful groups are those that know whom to talk to and when, are able to communicate in a bureaucratic fashion with briefs, working papers and professional consultations rather than through the use of public demonstrations and the like. Pressure groups exist along a continuum from issue-oriented to institutionalized and have different capacities depending upon their location. Institutional pressure groups are characterized by organizational continuity and cohesion, a stable membership and concrete and immediate operational objectives. Institutionalized groups have extensive knowledge of relevant sectors of government and ready access to them. They are unwilling to use some pressure tactics for they do not want to risk losing the access and credibility they have with the government. As such they will stop short of using techniques that manipulate public opinion to pressure government into action (Pross, 1992).

At the opposite end of the continuum are issue-oriented pressure groups. These groups differ from the institutionalized groups in a number of ways. Issue-oriented groups tend to have limited organizational capacity and continuity. Their membership is fluid, contributing to difficulty in setting even short-term goals. They lack knowledge of the government and access to it. Despite what appear to be severe limitations, issue-oriented pressure groups can exist for many years and impact government decisions. The strength of issue-oriented groups comes from the speed and flexibility with which they operate. They are able to generate immediate public reaction to specific issues. They will also use forms of political communication that institutionalized groups avoid using for fear of jeopardizing their relationship with government agencies. Issue-oriented pressure groups do not hesitate to embarrass government into taking action on their issue.

Policy Networks

Similar to a policy community, a policy network comprises the group of actors with an interest in the issue. One distinction used in the policy literature to differentiate a policy community from a policy network is that the policy community defines the static situation, primarily the membership of the actors, surrounding an issue while policy network describes the nature of the interactions between the actors (Coleman & Skogstad, 1990, Smith 2005). Two dimensions can describe policy networks: power dependence or structural properties. Power dependence of a policy network can be described by a continuum ranging from a highly integrated network to a weakly integrated network. Networks with higher degrees of integration demonstrate stable relationships among members, a highly restrictive membership, a high interdependence, shared responsibilities for implementation, and insulation from other networks. Weakly integrated networks are characterized by open, unstable memberships, less interdependence among organizations and influences from other networks.

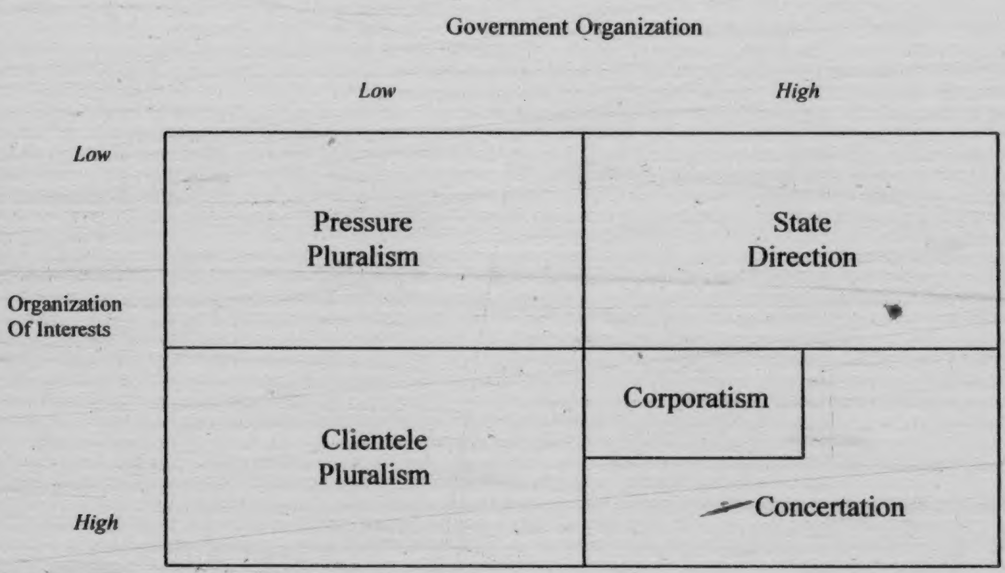
Structural properties of policy networks characterize them into two main categories, pluralist networks or closed networks, each with a number of sub-categories. Pluralist networks are characterized by groups approaching the state independently resulting in a competition for the ear of the state. A pressure pluralist network has numerous groups advocating for their interests and the state remaining autonomous. In clientele pluralist networks the state has a dependency on interest associations to provide information in exchange for the opportunity to participate in the policy process.

Within closed policy networks, state policy decision-making capacity is concentrated and well coordinated, usually within a single agency. The corporatist network is one type of closed network. It is characterized by two or more organized interests representing conflicting groups participating with the state in the formulation and implementation of policy. Contrasting this is the concertation network that has a single association representing a sector and participating with the corresponding state agency in the formulation and implementation of policy. In the final type of closed network, the state-directed network, the state agency is strong and autonomous and associations in the sector are dispersed and weak (Pal 2001).

Lindquist (1992) organizes the policy network categories according to degrees of government organization and the organization of the interests. This demonstrates the relative power of the network members. Lindquist places the different configurations of policy networks on a chart with four main quadrants (Figure 2). Pressure pluralism is in the quadrant with low organization of interests and low government organization.

Lindquist describes the interaction among players in this quadrant as 'war of all against all" (p 8). Competition exists between societal actors but also between state actors. Forward-thinking policy is difficult to create in a pressure pluralist network because the capacity to formulate and implement policy does not reach a critical mass anywhere in the network, leading to inherently reactive policy-making. They have 'weak associational systems'. There may be organized associations but there is considerable competition among these interests and associations and there is no mechanism to mediate between them. No actor possesses the capacity to develop overviews of the sector or engage in long-term planning. Similarly the government bureaus in this type of network must also compete to raise their concerns with the policy-makers. The real problem is

Figure 2. Policy Network Categories


Government Organization
Low
High
Low
Organization Of Interests
High
Pressure Pluralism
State Direction
Corporatism
Clientele Pluralism
Concertation

Adapted from Lindquist (1992; p. 135).

caused because the government does not have a process or sufficiently powerful department to resolve conflict within the bureaucracy and develop a coherent, integrated policy stance. Not surprisingly, this implies that the state does not have the capacity to develop long-term policy strategies for the sector under consideration. In summary, members of a pressure pluralist network typically have a short-term perspective and partial information with expertise dispersed throughout the network. This results in a highly reactive network.

The network characterized by low government organization but a high degree of organization among interests is called the clientele pluralist network. This high degree of organization among interests differentiates the clientele pluralist network from the pressure pluralist network. Because the interests are organized they are able to exert pressure on the state actors. Policy-making in this network is reactive, but more concerted, and is fully directed to maintaining the status quo. The interests work out their differences before they bring pressure on government with a unified front. Often a representative association with a good deal of staff and resources is used to do this. The result is a stance by the interest that encompasses the entire sector. In a clientele pluralist network the coordinated interest is more organized than the government. Barriers facing the government's organization can include dispersed jurisdiction and expertise spanning several departments. As such, the government is unable to develop a vision or plan for the sector (Lindquist, 1992).

The reverse of the clientele pluralist network is the state-directed network where the state is well organized compared to societal interests. Outside groups may be weakly organized because the interests are diffuse, latent or poorly represented. Interests may have economic, geographical, or ideological barriers to concerted action. There may have been acrimonious struggles between interests in the past. Different interests or individual organizations do not have the will or the capacity to mobilize and produce alternative policy strategies. The state has capacity to design policy, coordinate its bureaus, and to act autonomously from outside interests. Political leaders and senior officials have a vision or plan for the sector and the capacity to enact it. The government has considerable technical and policy expertise. It does not depend on outside groups for policy-relevant information. A lead agency is designated to spear-head policy development. Lindquist describes policy making in a state-directed network as tending to be lop-sided and occurring at the behest of the government. The situation creates considerable room for governments to launch unilateral initiatives and to neutralize opposition. Policy-making in a state-directed network is anticipatory in nature. A select group of interests are consulted especially those with information that might fit into the government's vision.

The final quadrant in Lindquist's description of policy networks is characterized by high levels of organization both in government and among interests. This quadrant contains concertation and corporatist networks. A concertation network is characterized by a strong association and an equally strong and well-organized government apparatus. Each side can articulate visions for the sector, each has its own sources of intelligence and each can design and evaluate different program options. Because each side must deal with the other on relatively equal terms, negotiation and cooperative planning results. According to Atkinson and Coleman (1989) responsibility for implementing a new policy will be left to the societal interests who have the incentive and capability to ensure that the plans are carried out. The state has the capacity to monitor outcomes and take recourse. The result is a closed, orderly policy-making process that occurs much like collective bargaining.

In a corporatist network the power of one associational system (a particular business sector) is balanced by another equally powerful set of societal interests (e.g., labour or another business sector). The role of the state is to ensure that these respective interests negotiate acceptable policy solutions to problems, so as to stop deadlock or retaliatory actions which would not be in the interest of either set of actors or society at large. The government is autonomous in that it is not linked to either set of interests. It may be divided on the issue but lacking capacity to outflank the interests. The government has legitimacy that the other players lack. The role of the state is to develop and administer a process by which societal interests can arrive at agreements. Usually it is left to the interests to implement their parts of the bargain.

Defining the type of policy network that exists surrounding a particular policy issue based on the interactions that occur and the relative positions of power the members of the network hold gives context to the events that envelop the issue. The following section will describe the events that move an issue through the five-stage policy cycle.

The Five-Stage Policy Cycle

Understanding the public policy process is central to understanding how issues rise on the policy agenda and how solutions to these problems are developed and implemented. Within the political science literature, models regarding the public policy process seek to explain why some issues come to be acted on by government and how the solutions to the issues are arrived at. Howlett and Ramesh (1995) describe a five-stage policy cycle based on the logic of the applied problem-solving model. This model facilitates the understanding of policy-making by breaking the process into a limited number of stages, thereby reducing the complexity of the process. Each of the five stages corresponds to a phase in the applied problem-solving model. With this model, each stage can be researched alone or as it relates to one or more of the other stages making case studies and comparative studies feasible. Unlike earlier models of stages of the policy process, this model allows for consideration of all stakeholders and institutions involved in the process, rather than just the government agencies responsible for the policy. These are attributes of the model that make it useful for developing a tool to gather data about the workings of the policy process and it will be used in this research to develop an interview guide. Figure 3 (below) depicts the relationship between the applied problem-solving model and the stages in the policy cycle.

Agenda setting.

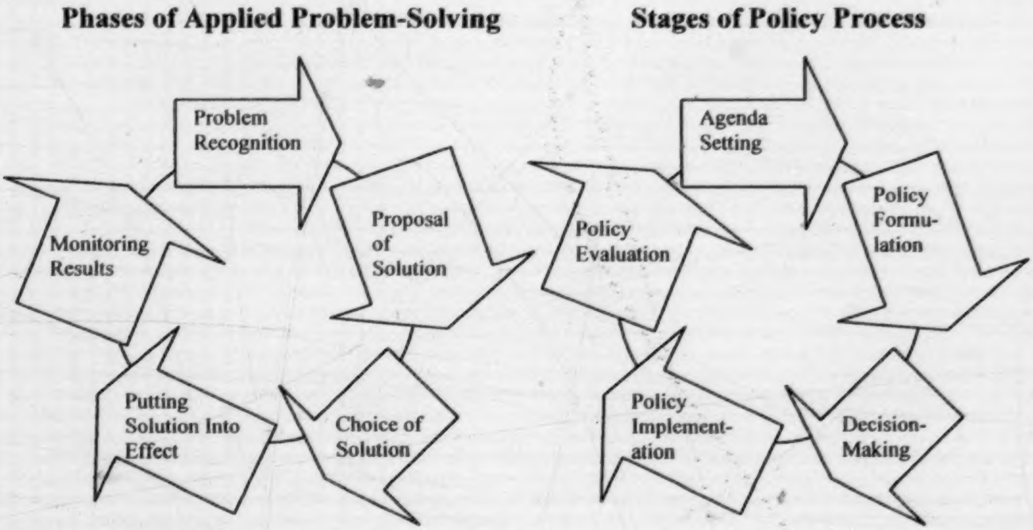
Howlett and Ramesh equate the agenda-setting stage to the problem recognition phase of the applied problem-solving model. They describe the agenda-setting stage of the policy process as the process by which problems come to the attention of governments. Kingdon (1995) elaborates by saying an issue can make its way to the political agenda when a set of conditions become defined as a problem which needs to be solved by policy makers. This can happen when specific indicators are large in magnitude or change, thereby bringing a problem to light. In addition, a focusing event such as a disaster, a crisis, or a personal experience of an influential individual may bring the conditions to the attention of policy makers. As well, policy makers may receive feedback about a previous problem that was thought to be resolved, which calls for a reassessment of the conditions being defined as a problem.

Rochefort and Cobb (1993) add that the intensity of issue advocacy, leader's openness to the issue, and the salience of competing problems are also factors impacting the importance attributed to a problem. They also find four major themes in the literature on problem definition. The first is causality that examines factors that produced the problem. The second theme, as Nimmo (1974, p. 9) describes it is the problem's "overall 'image'", which is "a subjective representation of something previously perceived" (as cited in Rochefort & Cobb, 1993). Thirdly, they find that problem definition can be impacted by the solution that is suggested for it. If a problem does not have a course of action attached to it, it may not be taken seriously. Finally, problem ownership, or the group or individual that is seen to have control and legitimacy to deal with the problem can impact the accepted definition of the problem.

Policy formulation.

Howlett and Ramesh compare policy formulation to the proposal of a solution. They describe this stage as how policy options are formulated within government. Kingdon believes players outside of government are involved in policy formulation as well. He identifies academics, researchers, consultants, analysts and interest groups as sources of alternative policy solutions to a problem. In Kingdon's words "ideas will bubble around within these communities" (p. 200) and are criticized and refined over time. Drawn from notions presented by Sabatier, Hall and Rose, Howlett and Ramesh (1995) add that choices of policy instruments made by policy-makers can be influenced both by the experience of the government and by the experiences of governments in other jurisdictions. Seeing the consequences of the choices made by others will influence a policy-maker's choices as he or she attempts to best attain their objectives of governance.

Figure 3. The Relationship between Phases of Applied Problem Solving and Stages of Policy Process


Phases of Applied Problem-Solving
Problem Recognition
Proposal of Solution
Choice of Solution
Putting Solution Into Effect
Monitoring Results
Stages of Policy Process
Agenda Setting
Policy Formulation
Decision-Making
Policy Implementation
Policy Evaluation

Source: Adapted from Howlett and Ramesh (1995)

Similarly, the individuals devising programs to be presented to elected officials will include in their recommendations instruments that have been successful elsewhere.

Decision-making.

Decision-making is the process by which governments adopt a particular course of action or non-action and it is compared by Howlett and Ramesh to the choice of a solution phase of the problem-solving model. Kingdon views decision making as a form of natural selection that occurs as alternatives are compared to various selection criteria. Technical feasibility of a solution, its congruence with the values of the community members, and an anticipation of the future constraints such as budget, public acceptability, and politicians' receptivity to the solution will all be considered. Howlett and Ramesh (1995) suggest that a recombination of familiar elements is often more readily accepted than completely new ideas. This is similar to Schon's (1971) concept of "ideas in good currency" (as cited in Pal, 2001, p. 111). Ideas in good currency are seen as plausible and important, and therefore, are more likely to be acted upon by decision-makers. Kingdon suggests the existence of a policy entrepreneur to champion their pet idea can influence its choice. Finally, Kingdon describes a policy window as the opportunity for advocates to push for action on a specific problem. Thus, the opening of a policy window can advance decision-making on a particular issue.

Policy implementation.

The fourth stage of the policy process is policy implementation and is compared by Howlett and Ramesh to putting the solution into effect. This is where policy decisions are translated into action by executing programs or policies. For this to occur, more decisions are required. Funding allocation, personnel assignments, detailing of procedures and other matters must be considered.

Evaluation.

Howlett and Ramesh's final stage in the policy process is that of policy evaluation. Policy evaluation is the process by which the results of policies are monitored by both the state and societal actors, the outcome of which may be reconceptualization of policy problems and solutions. It examines both the means being employed and the objectives being served. The results of the evaluation may cause the cycle to return to any of the earlier stages.

The Policy Cycle as Compared to Policy Streams

While Howlett and Ramesh's model offers an orderly stepwise process for examining the policy process, it may not be realistically representative of the way events actually occur. As discussed earlier in this chapter, Kingdon's idea of the three streams (problems, policies, and politics) offers a different model of the policy process that can account for a less linear progression through the process. Policy change is most likely to occur when the streams are joined or "coupled" together. Policy solutions "float around in or near government, searching for a problem to which to become attached or political events that increase their likelihood of being adoption" (Kingdon, 1995, p. 172).

While Howlett and Ramesh allow that the cycle is iterative, Kingdon sees the steps proceeding in a more random fashion. He attests that some activities may happen concurrently in all stages within independent streams of actors. For example, a solution may exist for a problem that has yet to come to the attention of decision-makers. However, until the problem does come to their attention no decision will be made and no work on implementation can be started.

According to Kingdon, competition for a place on the policy agenda is affected by the limited capacity of the system to deal with agenda items. Only a finite number of issues can be dealt with at any given time. Even issues that are ready to enter the decision-making process, that is, issues with all streams in place, may be delayed as larger, more important issues displace lesser issues. The government ministry, the minister, the staff, government committees and the lawyers who draft the policy documents each have a relatively fixed capacity. Budget requirements can also limit the speed with which an issue is resolved. The capacity for dealing with routine types of issues is greater than the capacity for dealing with new or unique issues.

Additional Concepts Influencing the Policy Cycle

Policy windows.

In analyzing the policy process, the question of when events will occur arises. The concept of policy windows helps to understand the timing of events in the policy process. A policy window is an opportunity for advocates of proposals to push their solution to a problem or to raise attention of their problem on the policy agenda. Two types of policy windows exist: predictable and unpredictable. A predictable or regularly opening policy window occurs at specific times such as elections, cabinet shuffles and budget speeches (Pal 2001). Less predictable windows open when other things happen in the policy environment. These windows can be described as either "problem windows" or "political windows". A problem window opens when information is made available that illustrates a problem as a compelling issue for which action is needed. A political window opens with such occurrences as the turnover of key personnel or the emergence of an organized political force. To take advantage of an unpredictable policy window, proponents must wait with all materials and plans in place for the window to open.

Interests, ideas, and institutions.

Identifying the motivation of the members of a policy community to act as they do is fundamental to comprehending the interactions within the community that shape policy. Interests, ideas, and institutions fashion the behaviour of the actors within the policy community. Interests are the perceptions of stakeholders or legislators and policy advisers about who will benefit from and who will be hurt by a given policy. Interests are defined by the objectives actors are pursuing (Goldstein, 1993).

Ideas are defined by Goldstein (1993) as shared beliefs. Ideas can include research and other types of information and the values of legislators, policy advisers, stakeholders and the general public (Lavis et al., 2002). Of particular interest are ideas related to shared causal beliefs. Shared causal beliefs are beliefs about cause–effect relationships helping to explain why things happen as they do. These ideas are often based on deeply held normative beliefs, therefore they are a reflection of underlying values. Ideas that are aligned with the underlying values of a group are those most likely to find support among members of a group. Ideas give meaning to and act as a guide to action. They legitimate for the group claims for the material and political goods that they seek. How a group will go about securing these goods is also determined by the ideas it holds. As Weber stated, "ideas act as switchmen determining the tracks along which action has been pushed by the dynamic of interest" (as cited in Goldstein, 1993, p. 33). In addition to binding together members of a single group, coalitions are bound together by their commonly held ideas and base their activities on them.

In the context in which policy-makers work, ideas are important. Because policy-makers are operating without complete information about their environment, they must rely on causal models when making policy choices. The ideas the policy-makers hold form the basis for these causal models acting as Goldstein says "like road maps linking policies to a constellation of interests" (p. 44). The strategies the policy-makers choose are based on assumptions they draw from the causal models. Similarly, policy entrepreneurs derive their strategies from ideas when seeking ways to maximize their interests. Thus, ideas can help predict the direction of policy at least as well as it can be predicted by the simple calculation of interests.

Institutions are constituents of the policy environment that set limitations on policies that can be developed and actions that can be taken. Institutions include factors like policy legacies and characteristics of the policymaking process such as its openness, the degree of time pressure, and the level of approval required (legislative or staff in the executive office). Policy legacies refer to past policy that will influence whether or not an issue will be put on the policy agenda. Taken together interests, ideas and institutions set the direction and path and provide the driving force for issues to move through the policy cycle.

Research Question

Keeping in mind the literatures on children's physical activity, active transportation and public policy this research will address the following question:

> *Why have public decision-makers in Edmonton and Calgary chosen not to adopt active transportation initiatives, (such as the Walking School Bus), as a policy option for increasing levels of physical activity in school-aged children?*

Study Design

Public policy surrounding the issue of physical activity in Alberta's urban schools is examined in this study. In particular, the development of policy at the provincial, school board and individual school levels within the four largest school jurisdictions operating in the urban centres of Edmonton and Calgary are examined. Edmonton is a city of 712,000 people centrally located within the province of Alberta. Two school boards provide education for most children in the city. The Edmonton Public School

Board has 132 elementary schools with a total of 38,735 students and the Edmonton Catholic Schools have 51 elementary schools with a total of 13,900 students. Calgary is located in southern Alberta and has 956,000 residents. Like Edmonton, Calgary has two school boards that educate the vast majority of children. The Calgary Catholic Board has 49 elementary schools that educate 17,459 students and the Calgary Board of Education has 131 and 40,400 students. Elementary schools in both cities are geographically dispersed throughout residential neighbourhoods.

To afford a comparison of a grassroots, community-organized active transportation program with top-down mandated policy, this study compares walk-to-school programs like the Walking School Bus with the recently adopted Daily Physical Activity Initiative. Active transportation is most feasible for children living in urban settings so the province's two major cities, Edmonton and Calgary, are the sites for this study. Elementary schools are the most numerous type of school in Alberta. Urban centres often have one elementary school in every neighbourhood allowing a larger proportion of students to live within walking distance. As such, elementary schools rather than junior high or high schools are the focus of this study.

Within the school boards, trustees, principals and parents are potentially influential in program choice and implementation. In addition to school boards, a number of departments and agencies within the Government of Alberta affect the programs administered within Alberta's education system. Non-governmental organizations advocating physical activity in the school system are also potentially influential. This study aims to capture relevant information about the policy community and policy network within which these players are involved that determines/affects the policy direction taken to handle the issue of low physical activity levels as a factor contributing to childhood obesity. Although obesity is caused by energy intake from food exceeding energy expenditure through physical activity, the focus of this research will be restricted to public policy making related to the physical activity side of the obesity equation.

Identification of Mandates and Key Policies through Web-based Sources

Prior to contacting each stakeholder, information was gathered about their organization using the organization's web site as a source. Policy documents such as a mission statement were used to verify that the organization does in fact have an interest in the topic. Where available, organizational charts or telephone listings were used to understand the structure of the organization and help to pinpoint where within the organization the best contact person is likely to be located. The web site was also the source of a telephone number to make initial contact.

The researcher also attended several topical seminars, symposia and policy sessions held in the months prior to the launch of this study. Attendance at these events provided opportunities for informal conversations with practitioners in the field during which information about the stakeholders significant to the issue was gathered. In addition, key policy and research documents were reviewed for comparison with perceptual data.

Sampling Strategy

A non-probability purposive sampling technique (Trochim, 2001) was used to choose the sample from stakeholder groups involved in the policy processes that give direction to our schools on policies relating to physical activity of the students. Key decision-makers with demonstrable experience and expertise in the policy processes surrounding physical activity in selected school jurisdictions were sought out and invited to participate in the study. One such individual from each of 20 key stakeholder organizations was selected for interview. Key stakeholder organizations include three Government of Alberta ministries whose mandate is concerned with the physical activity levels of children, five non-governmental agencies who influence policy relating to physical activity of children, and one board trustee, one principal and one member of a parent council executive from each of four school jurisdictions in Edmonton and Calgary.

The sampling strategy was successful in securing interviews with participants including two ministers of the crown who have held portfolios for education and health, two current government managers of health and education programs, a school board trustee, one school board executive, two school board physical education specialists, four school administrators with strong physical education backgrounds and over 15 years experience each in the school setting. The health professionals who participated included five participants each with numerous years experience in the promotion of physical activity in the school setting and a noted researcher/practitioner in the field of childhood obesity.

Ethical Considerations

Because of the small sample and the details sought in the discussion, an informed reader of the research report may be able to identify individual respondents despite the removal of identifying information. Participants were given the option of reviewing and revising and/or removing anything with which they were not comfortable from the interview transcripts prior to data analysis. Information gathered through interviews is presented in aggregate or summative form only. Individual participants are not directly quoted unless they have reviewed the quote and have given written permission to do so. The names or organizational titles of individual participants will not appear in any published documents. Information gathered from individual participants through interviews is coded so that only the researchers are aware of original sources.

A proposal to conduct research was submitted for review to the Health Research Ethics Board, Panel B at the University of Alberta on January 18, 2005. An expedited review was conducted and approval was granted March 01, 2005 to conduct the research as proposed. A copy of the letter is in Appendix 1.

Permission Processes

Stakeholders with whom interviews were proposed represented numerous organizations within several sectors. Approval to conduct research was secured from six different organizations prior to approaching the individual interviewees. The time required to receive the approvals ranged from six weeks to several months. Schools and education-related organizations generally have a moratorium on conducting research between June 1 and October 1 of each year. Research is also not welcome during the month of December.

The researcher contacted potential interviewees by e-mail or, if not available, by telephone. The researcher briefly explained the study, expectations of the interviewee, and the time commitment requested. Initial verbal consent was sought to follow up with an information letter and a formal consent form. If initial consent was granted, a time and place for the interview, convenient for the interview participant, was set. If agreeable with the interview participant, the interview took place at the interview participant's place of work. Otherwise, interviews were conducted at a place convenient for the interview participant. An information letter (in Appendix 2) and a consent form (in Appendix 3), both drafted in accordance with the guidelines outlined by University of Alberta Health Research Ethics Board were sent to the interview participant.

Interviews

The interview portion of this research comprised a series of semi-structured, one-on-one interviews with key individuals representing stakeholder organizations. Interviews allowed the opportunity to probe and ask follow-up questions, something that is not possible through the administration of a questionnaire (Trochim, 2001). Thus, the interviews gathered rich data allowing more insight into the policy processes in which the participants were engaged.

Questions asked.

Questions were posed to determine what the various levels within the education and health systems have chosen as solutions to increase the physical activity of children, particularly solutions to be used within the school setting, and why. Specific questions regarding the consideration of walk-to-school (WTS) programs as possible solutions were asked. The Daily Physical Activity Initiative (DPAI) is one solution or partial solution that has been chosen to increase physical activity in school-aged children and became mandatory for all school districts in the province's elementary schools as of September 2005. Questions were asked to determine if the Province of Alberta has adopted anything else. The interview guide (in Appendix 4) provides more detail of the questions asked. Questions were posed to determine the criteria that were used to select the DPAI from among all policy solutions considered, and, if WTS programs were considered, which criteria they failed to meet. This contributes to identifying facilitators and barriers to meaningful public policy relating to increased physical activity among school-aged children.

Data collection.

Data were collected through one-on-one interviews using the interview guide (Appendix 4). The guide ensured that all desired areas of questioning were covered during the interview, but gave flexibility so that an interactive discussion could take place between the interviewer and the interviewee. The guide allowed for additional probing into the defined areas, or for moving the discussion into relevant areas that were not anticipated. The questions were pilot tested on two individuals with backgrounds and experience similar to the interviewees to ensure they were understandable. The interview times ranged from 50 minutes to 1.5 hours.

Prior to giving consent, the participants were made aware that an audio recorder would be used to capture the discussions. All participants who were interviewed face-to-face agreed to the use of the audio recorder. For the one interview that was conducted by telephone, data were captured through hand-written notes taken by the interviewer. Recorded interviews were transcribed verbatim by a professional transcriptionist. Interviewees were given the option of reviewing the transcription of their interview prior to analysis of the data.

Storage of data.

Audio files and transcripts are kept in a secure cabinet in the researcher's university or home office. Only the researcher and her supervisor have access to the material.

Verification.

A hard copy of the interview transcript was returned to each interviewee requesting to view the document. When requested, the document was sent via e-mail or fax along with instructions for returning the transcript. The interviewees were asked to read the transcript and identify errors in the transcription. They were also asked about their comfort with the statements – has the transcription actually captured the intended meaning, or did it need to be revised? Very few interviewees chose to review their transcripts. Those who did were primarily within programming areas of government departments and made only minor changes (e.g., program names).

Data analysis.

A coding framework was designed to take into account the policy stages model proposed by Howlett and Ramesh (1995) and the interests, ideas, actors, institutions and external events concepts outlined through Kingdon (1995) and other authors. Lines of the transcript were numbered. Data from each line was categorized according to the numbering of the questions on the interview guide that correspond to the coding framework. Content analysis of the text was conducted to identify major themes as they relate to the categories of the coding framework. NUD*IST version N6 was used to code and organize the data.

Presentation of findings.

The data collected by both the review of secondary data sources (policy documents and websites) and the one-on-one interviews are aggregated and presented in descriptive prose beginning in chapter 4, which describes the actors surrounding the issue of physical activity in Alberta's schools. While chapter 4 is primarily descriptive, chapter 5 is more analytical, bringing in additional literature to verify and qualify the perspectives expressed by the research participants. This process corroborates the data gathered in this research with that expressed in other bodies of literature, thereby adding to the confirmability of the findings (Trochim, 2001). Perceptions of the research participants are expressed in a summative form to capture the widely held perceptions of participants from the various groups. The discussion in chapter 6 synthesizes the theoretical basis of the conceptual framework of the research with key learnings of the research and expands this from the case at hand to the broad practice of health promotion.

CHAPTER IV.

The Policy Environment Surrounding Physical Activity in Alberta's Urban Schools

Chapter 4 contains a description of the policy community surrounding physical activity in Alberta's urban schools gathered from interviews with participants as well as documents and websites discussing the member community organizations. Understanding the dynamics of how policies come to be is dependent upon identifying and understanding the composition of the policy community. This is the preliminary step in defining the policy network – "the properties that characterize the relationships among the particular set of actors that forms around an issue of importance to the policy community" (Coleman and Skogstad, 1990, p. 26). It is the patterns of these relationships that allow for an understanding of how the policy process works surrounding a particular issue.

The Policy Community Surrounding Physical Activity in Schools

The Sub-government and the Attentive Public

The illustration of the policy community surrounding physical activity in Alberta's urban schools (Figure 1) is based on Pross's bubble diagram and shows the members of the decision-making sub-government and the influential attentive public. Making up the sub-government within which most decisions are made are the Alberta Ministry of Education, the cabinet of the Government of Alberta, the four school jurisdictions within Alberta's major cities of Edmonton and Calgary, and the individual school communities including school administration, staff, and teachers. Outside of the sub-government is the attentive public, which in this case comprises Alberta Health and Wellness, Alberta Tourism, Parks, Recreation and Culture, the regional health authorities serving Edmonton and Calgary, school councils, students and their parents and numerous special interest organizations.

Ideas, Interests, and Institutions within the Policy Community

Each member of the policy community acts based on ideas embodied in values, and beliefs, interests as expressed in its mandate, and the institutions as prescribed by the organization and policy legacy. The steps that the policy community members have taken to influence policy related to the physical activity of students are a product of the ideas, interests and institutions, and illustrate the fundamental beliefs and constraints impacting the organization.

Descriptions of the Policy Community Members in the Sub-government

Alberta Education

The Alberta Ministry of Education (Alberta Education) is responsible for providing primary and secondary education to Alberta's children (Alberta Education, 2007). It is a central member of the sub-government in the policy community relating to physical activity in Alberta's schools. The School Act is administered by Alberta Education and is the policy directing the operation of Alberta's schools (Government of Alberta, 2001). Through the School Act Alberta Education defines the responsibilities of school boards. Alberta Education determines the curricula that schools must use including the physical education and Daily Physical Activity programs. As a result of its mandate, Alberta Education influences the physical activity policy impacting virtually all children in Alberta. The Minister of Education and his delegates are the key decision-makers regarding the education of Alberta's children, but they share the responsibility for implementation with the 64 school jurisdictions in the province. Unlike core subjects, results in physical education and DPAI (Daily Physical Activity Initiative) are not measured or evaluated. So, while Alberta Education mandates the program providing physical activity, the level of control the ministry has over the school boards for physical activity is limited.

Alberta Education, as a ministry of the Province, supports the Government of Alberta goal that Albertans will be healthy. The ministry does this in part by supporting the Health Innovation and Wellness Initiative, a provincial strategy using a multifaceted approach to student health. The Alberta Education business plan also discusses implementing the Kindergarten to Grade 12 Revisioning Plan (Alberta Education, 2006a). This plan would see Alberta Education working with stakeholders to support school-based initiatives to address all components of wellness, including daily physical activity.

Government of Alberta

Three Government of Alberta ministries are identified as members of the policy community regarding the physical activity of children in schools. In addition to Alberta Education, Alberta Health and Wellness and Alberta Tourism, Parks, Recreation and Culture, (formerly Alberta Community Development) are also members of the policy community. There are few identifiable linkages between the ministries concerning physical activity of children. The strongest of these is the position of the School Health and Wellness Manager, which is jointly funded by Alberta Education and Alberta Health and Wellness. This is part of the cross-ministerial Health Sustainability Initiative (Alberta Health and Wellness, 2006a). A more tenuous linkage exists between Alberta Education and Alberta Tourism, Parks, Recreation and Culture. The Alberta Active

Living Strategy that was written by Alberta Community Development in 1998 names schools as having a major role in promoting the physical activity of children (Alberta Community Development, 1998). However, the activities named in the strategy do not appear in the Alberta Education business plan.

Lyle Oberg, Minister of Learning

Lyle Oberg was appointed Minister of Learning in May 1999. He held this portfolio until November 2004. As the minister of the department, Oberg was responsible for seeing that his department executed its mandate and worked to attain its goals as listed in its business plan. Lyle Oberg is a medical doctor and practiced family medicine in a rural Alberta community prior to entering politics (Legislative Assembly of Alberta, 2007). His medical background shaped his perception of the problem of overweight and obesity and allowed him to see the negative consequences they were having on Alberta's children. Through the medical literature he recognized the need for a population-based intervention to increase physical activity levels of all children.

Oberg can be considered either a policy entrepreneur as defined by Kingdon (1995) and Mintrom (2000), or a policy opportunist as defined by Weissert (1991). His medical background gave him the expertise on the issue of obesity, a key characteristic of a policy entrepreneur, and his position as Minister of Learning allowed him to introduce the new policy of DPAI in schools. Oberg may have lacked the policy entrepreneur characteristic of investing a great deal of personal effort over an extended period of time to advance his issue. Likely, he saw the policy window opening as concern grew among the public to address the problem of childhood obesity and acted when the opportunity presented itself. This gives Oberg the appearance of a policy opportunist taking advantage of an already 'softened up', system, that is, one that is used to the new idea (Kingdon 1995) and prepared to accept the DPAI solution as presented. Either way, Oberg may have used a combination of his medical knowledge and his political position to make DPAI a reality in Alberta's schools.

School Districts

The school districts, or jurisdictions, are central members of the sub-government concerning the physical activity of children in Alberta's urban schools. Each school district in Alberta is overseen by an elected board. Four districts operate in Alberta's major urban centres, two in Edmonton and two in Calgary. Each board employs a variety of administrative staff to direct the activities within the board's schools. Districts try to have a leadership role and work to shape the programming offered district-wide (P1). Information coming from Alberta Education regarding health and physical activity reaches school administrators and teachers via the district consultants (P2).

School jurisdictions broadly define health as inclusive of physical, emotional and mental wellbeing. District consultants act as leaders and resource people for the teachers in the schools in all areas including health and physical activity (P12). Health and physical education consultants gather and disseminate information and teaching resources to support the curriculum (P1, P12). The consultants seek out literature that reports on the best practices regarding health and physical education programs, gather literature from education, health and professional organizations and use the media as a source of information about the problem of inactivity and possible interventions (P1.2). Consultants share information about initiatives that have been successfully implemented by other schools and organizations for increasing activity levels of school-aged children

(P1.2). The role of board physical education consultants is to be supportive of staff in the schools, but not directive (P12.2). This is key to understanding why variations exist between schools.

In addition to their work within the schools, school districts see a role for themselves in assisting parents to identify appropriate levels of physical activity and nutrition requirements. They seek to accomplish this through partnerships between parents and schools. (P12.2, 1.2)

Because of the concern of parents, school boards have recently been showing a level of concern about healthy eating and active living that was not previously demonstrated. School board staffs are beginning to suggest a variety of healthy eating and active living initiatives for schools to implement even if they are not spelled out in a specific policy (P6). At the same time, elected boards are considering the implementation of policies regarding healthy eating in schools. As a result, schools will see increased direction from the board on what foods should and should not be available in schools (P1.2).

School jurisdictions also encourage schools to participate in physically active events. They use their web site to disseminate information about various types of events in which schools can participate. However, school board staffs do not seem interested in promoting active transportation. They don't feel that travel to school (other than on buses) is the responsibility of the board. They do not share the individual schools' concerns about reducing traffic congestion or increasing safety around schools (P1.1).

Individual Schools

Individual schools are situated within the sub-government as they are embedded in the school jurisdictions as their vehicle of implementation of the boards' mandates. The individual elementary schools, which are the schools focused on in this research, range in size from under 200 students to over 600. The schools have variations in the physical plants with which they operate but virtually all have a gymnasium and a school yard with playing fields that they can use for a variety of physical activities. All have at least a basic supply of equipment for sports and games, some having more variety and elaborate equipment with which to work.

As is mandated by Alberta Education, children in elementary school attend for approximately 200 days per year. Because of this, teachers in the schools have regular and long-term access to the children. This amount of direct contact with the students means the teachers are well-positioned to see the effects of inactivity on the children's health and learning.

School-based management is the norm within Alberta's urban schools (Alberta Education, 2003). Many decisions regarding how to achieve curriculum outcomes mandated by Alberta Education, including those related to health and physical education are made at the level of the individual school. The emphasis given to physical activity is dependent on the individuals present within each school. The individuals within the school community (students, teachers, principal and vice-principal, support staff, parents, and parent council) shape the activities the community takes on.

Administrators and teachers at individual schools often make direct connections with organizations supporting physical activity and health of students. The Health and

Physical Education Council (HPEC), the Canadian Association for Health, Physical Education, Recreation, and Dance (CAHPERD), Safe, Healthy Active People, Everywhere (S.H.A.P.E.), and Go for Green all offer physical activity training, information and support to teachers regarding the implementation of activities. These organizations, along with the school jurisdictions' consultants, make a wealth of information available to those who are working in the schools. Sources of options for physical activity initiatives come from many members of the school community.

Descriptions of the Policy Community Members in the Attentive Public

As discussed earlier, the attentive public can be considered outsiders whose influence the members of the sub-government try to limit. Pressure groups, individuals, and government agencies can all be members of the attentive public. The commonality among them is that they have an interest in the issue of concern but for one reason or another they lack the power or the will to break into the sub-government decision-making process. The attentive public does, however, keep a critical eye on the actions of the sub-government.

The Cabinet of the Government of Alberta

Because the members of the Cabinet in the Government of Alberta must deal with all the concerns of the government they, with the exception of the Minister of Learning, sit on the border between the sub-government and the attentive public. They can step in and act as a block to physical activity policies that are at odds with the interests of other areas of government or they can give open support or tacit agreement as they did in the case of DPAI. Financial requests or the need for active involvement from other ministries are the most likely reasons that the cabinet may enter into a specific issue relating to physical activity of children. However, when compared with other concerns facing the government, the physical activity of children, even if it does have long-term effects on health, is not a major issue of the cabinet.

Alberta Health and Wellness

Within the Government of Alberta, it is clearly the department of Health and Wellness that is mandated to 'help Albertans be healthy'. Alberta Health and Wellness is positioned on the border between the sub-government and the attentive public of the policy community related to physical activity in Alberta's urban schools because only a portion of the department is concerned with the issue. Because Alberta Health and Wellness has the health mandate and Alberta Education has access and control over the children during the school day Health and Wellness is dependent on the education system for the implementation of school-based healthy living programs. Until recently there was little connection between the two departments at the program level. However, in September 2006 the department announced a five-pronged initiative to address healthy weights in children and youth (Alberta Health and Wellness, 2006b). Two of these initiatives plan to reach children through the school system and can include physical activity initiatives. While it is not yet clear how Alberta Education will be involved in these initiatives, working with the schools will give Health and Wellness access to the student population.

Health Regions

The health regions are mandated by Alberta Health and Wellness through the Regional Health Authority Act to promote health, respond to regional health needs and to report on their performance (Alberta Health and Wellness, 2007). Health promotion by the regions is designed to promote and protect the health of the population within the region, and work to prevent disease and injury.

The health regions responsible for Alberta's major urban areas, the Calgary Health Region and Capital Health, are positioned as members of the attentive public. They are interested in seeing the health of Alberta's student population supported by activity within the school system, but they are removed from the decision-making bodies of the education system. The primary form of contact that the health regions have with the school system is via school nurses (P14). Each school has a public health nurse assigned to it. They are available for consultation regarding health and nutrition issues, however, the time they are able to dedicate to each school is very small. Administering vaccinations accounts for the majority of time the nurses spend in schools. The nurses do work to share information about healthy lifestyles with teachers and administrators at the schools. This most often takes the form of handouts for students related to such things as the annual nutrition month.

Pressure Groups

The Health and Physical Education Council.

The Alberta Teachers' Association operates the Health and Physical Education Council (HPEC) (Health and Physical Education Council of the Alberta Teachers' Association, 2007). HPEC is a professional organization of teachers that is committed to helping Alberta teachers provide quality instruction and programs in health and physical education and to promote the development of healthy active lifestyles in students. HPEC is a source of information for teachers regarding physical activity and physical education. The group has advocated for daily physical education in schools since it published a position statement on the issue in 1984. HPEC acts as the provincial link with the national physical activity organization, the Canadian Association for Health, Physical Education, Recreation and Dance. HPEC is a member of the attentive public with strong ties to the teachers within the individual jurisdictions and schools. HPEC also operates two programs in Alberta that promote physical activity in the school setting, Schools Come Alive and Ever Active Schools. Working with teachers and administrators, Schools Come Alive "provides leadership and expertise to support the development and implementation of quality health and physical education programs and wellness initiatives in Alberta school communities". The purpose of the Ever Active Schools program is "to encourage, identify and recognize schools that value and promote positive healthy behaviours and practices, as well as physical activity opportunities, through initiatives that affect the entire school community". Both programs offer learning opportunities to enrich the physical activity programs within Alberta's schools.

Canadian Association for Health, Physical Education, Recreation and Dance.

According to their website, The Canadian Association for Health, Physical Education, Recreation and Dance (CAHPERD) is a national, charitable, voluntary-sector organization whose primary concern is to influence the healthy development of children and youth by advocating for quality, school-based physical and health education (Canadian Association for Health, Physical Education, Recreation and Dance (CAHPERD), 2007). CAHPERD advocates and educates for quality physical and health education programs within supportive school and community environments. CAHPERD links to Alberta teachers and schools via its affiliation with HPEC. It is a source of information and ideas for physical activity and health initiatives that teachers and schools can use for developing physical activity within school life. CAHPERD's links with HPEC also position it as a member of the attentive public.

Go for Green.

Go for Green describes itself as "the Active Living and Environment Program whose mission is to inform Canadians about healthy, active lifestyle choices, and nurture commitment and action to improve our health and the health of the environment" (Go for Green, 2007). Go for Green works through local, regional and national partnerships to create healthy, safe and accessible environments for outdoor physical activity. One of its objectives is to encourage active transportation as an alternative to our growing reliance on the automobile. Go for Green works with the S.H.A.P.E. organization in Alberta to promote walk to school programs. It organizes a number of national events in which school communities can enroll.

Active and Safe Routes to School.

Active & Safe Routes to School (A.S.R.T.S.) promotes the use of active and efficient transportation for the daily trip to school, addressing health and traffic safety issues while taking action on air pollution and climate change (Active & Safe Routes to School, 2007). This is an Ontario-based group that makes resources available to schools to encourage walking and bicycling to school. A.S.R.T.S. also works with the S.H.A.P.E. organization.

S.H.A.P.E - .Safe, Healthy, Active People Everywhere.

S.H.A.P.E. is an Alberta-based non-profit multi-agency collaboration that desires to get children more active; eliminate safety obstacles in and around schools, keep the environment clean by teaching children active and healthy lifestyles, and involve all members of the community (Safe, Healthy, Active, People Everywhere, 2007). S.H.A.P.E. works directly with interested Alberta schools to promote active transportation to schools. S.H.A.P.E. links with Go for Green and Active and Safe Routes to School. It has been operating for seven years at creating a network of interested schools. S.H.A.P.E. is supported by Alberta Tourism, Parks, Recreation and Culture but must continually seek small grants from a variety of organizations to maintain its programs.

Alberta Centre for Active Living.

The Alberta Centre for Active Living is a source of information linking research about physical activity to practitioners (Alberta Centre for Active Living, 2007). The Centre is an advocate for increased physical activity among Albertans of all ages. The Centre is affiliated with the University of Alberta and is funded by the Alberta Sport, Recreation, Parks & Wildlife Foundation and Alberta Tourism, Parks, Recreation and Culture. The Centre's research seeks to understand the determinants of physical activity, interventions, "Best Practices" and programs related to physical activity, monitor the status of physical activity in Alberta and gather data to reinforce the case for incorporating physical activity into daily life. While the Centre does not deal directly with schools, they are influential in the broader context of physical activity in Alberta and help to shape the environment in which schools operate.

Alberta Coalition for Healthy School Communities.

The mission of the Alberta Coalition for Healthy School Communities (ACHSC) is to promote and foster healthy school communities through a comprehensive school health approach that enhances the health of Alberta children and youth (Alberta Coalition for Healthy School Communities, 2007). Its work is founded on the principle of comprehensive school health. ACHSC works with all levels of stakeholders to address the underlying social determinants of health affecting the health of students. ACHSC is not directly concerned with physical activity but with the social determinants that may be preventing students from getting physical activity and all other things necessary to live a healthy school life. The coalition is linked with both school communities and health regions. It has operated for many years as a voluntary organization of dedicated individuals. As a member of the attentive public, it monitors the broad determinants of health within Alberta's school communities and how they impact on the health and education of the students.

This overview of the policy community surrounding the issue of insufficient physical activity in school-aged children demonstrates that there are several organizations that have policies that directly (or seek to) influence the amount of physical activity children receive in the school setting. These organizations range from the grassroots school councils to the large government ministries. Most decision-making power impacting physical activity in schools is held within the education sector while responsibility for health outcomes rests with the health sector. There are many pressure groups who are concerned with the physical activity levels of students and who try to influence physical activity within schools through a variety of activities. Most, however, are only marginally powerful at influencing the physical activity policies. Power remains concentrated with the government ministries and the institutionalized education sector.

CHAPTER V.

Analysis

This chapter contains the analysis of the data gathered through interviews and secondary sources. First it examines the societal factors shaping the physical activity situation in Alberta and sets the scene for analyzing why DPAI has been adopted and WTS initiatives have not. Next, adding further context is a chronology of the key events affecting policy surrounding physical activity in general and the Alberta school system more specifically. Following that is the analysis of the policy network described in terms of the institutional factors, ideas and interests. This analysis leads to a discussion of the five-stage policy cycle. Because the situation seen in this research did not follow a sequential path, Kingdon's model of three policy streams and the means by which it has influenced the policy outcomes is then discussed.

Overarching Societal Factors Affecting Physical Activity in Schools

Understanding the societal context is valuable to understanding the policy processes effecting physical activity in Alberta's urban schools. This chapter begins with discussion of the overarching societal factors that impact on the issue of physical activity in general and in our schools. The factors that will be discussed are the social determinants of health, the automobile and its place in our culture, loss of free play by our children, the impact of video screens, and the changes in our built environment that are described as urban sprawl.

Social Determinants of Health

The social determinants of health and the interactions between them have come to be recognized as the foundational causes of health and illness. Social determinants of health are the best predictors of individual and population health, they structure lifestyle choices, and interact with each other to produce health (Public Health Agency of Canada, 2004). According to Raphael, the social determinants of health are the socio-economic conditions that influence the health of individuals, communities and jurisdictions as a whole. These determinants also establish the extent to which a person possesses the physical, social and personal resources to identify and achieve personal aspirations, satisfy needs and cope with the environment (Raphael, 2002). Included in the social determinants of health are factors such as income inequality, social inclusion and exclusion, employment and job security, working conditions, contribution of the social economy, early childhood care, education, food security, housing, peace, social support, and family violence. Since the mid-1990s health experts have come to recognize that the social determinants of health have a greater impact on the health of individuals and groups than medical care or personal behaviours. Decision-makers are becoming more familiar with the concept of the determinants of health because it is being given coverage in the press. Health decision-makers are likely to be more familiar with the concept than are education professionals. (P3)

When the problem of insufficient physical activity is viewed from a population health approach, the various social health determinants are recognized as the causes. Viewing the cause of insufficient physical activity as the social determinants of health paints a very complex picture with few simple solutions. Participants describe findings in the literature stating socio-economic, family and social settings within which children live, and cultural differences are some of the social determinants of health that are recognized as factors influencing the level of physical activity of children (P3, P4, P8). Recognizing that the cause of the problem is systemic rather than individual gives credence to government action to resolve the problem.

Car Culture

Because dealing with a number of social determinants of health can seem overwhelming to an individual, the majority of participants interviewed narrowed the problem to single, more tangible, causes. While different individuals held differing beliefs about the decreased physical activity levels in children, people in all sectors noted the ubiquity of the car as reducing physical activity in our society. More succinctly, the source of the problem is that "we drive our children everywhere", including school (P6). Non-use of active transportation to school is a result of people's desire for convenience and habit. "We have turned into a fast food culture – we want everything to be quick and convenient" (P17). Even stay-at-home parents, who are perceived to have more flexibility with their time, drive because it is more convenient than walking.

These findings are supported by sociological research. In their book *The Ecology of the Automobile*, Fruend and Martin discuss that in mature industrialized countries the automobile has become the only viable means of transportation. The auto-centred transport system that has been created and in which the car is dominant has become for many the only mode of travel used for everyday activities such as going to work, to shop and to appointments. Underlying this is the cultural symbolism of the car as an icon of freedom, power and individuality. The ubiquity of the car has embedded it as a cultural artifact in our personal experiences and our belief systems. It has become entrenched in our cultural and psychological experiences.

According to Fruend and Martin, auto transport as a technology offers unparallel advantages of privacy and flexibility. Cars represent individual mastery over technology; they are a source of individual freedom, power and speed, social status and sexuality. The car is seen as an inevitable and desirable feature of life. This belief has created a blind spot in our ability to critically assess auto-centred transport. The dependence on cars we have developed has stopped us from recognizing the downside of auto transport until recently. Environmental degradation, transportation disenfranchisement of populations, intense resource and energy use, bodily mayhem and more subtle health problems; anti-social behaviour, and distortions in the fabric of social life, particularly the losses of public space and street life are some of the negative features of auto-centred transport that have escaped public awareness for decades.

When one views the infrastructure that has been developed to support transport by the individual car it seems that auto-centred travel is an unchangeable fact of life. However, Fruend and Martin point out that this reality is a human product, a socially-constructed reality that can be undone by humans as well. They state that our task is not to eliminate but to reduce our auto-dependence and to move away from auto-centred transport systems to systems that feature a greater variety of modalities. Walking, bicycling and public transportation could all have a place in the transportation systems of the future.

Concerns about safety are also reasons we depend on our cars and use them to deliver children to school. Families with two working parents want to be sure that their children arrive safely at school before they go to work (P5, P6). Parents are scared to let children walk because they fear traffic and strangers. Recent incidents in the city heighten the fear (P6, P7, P12). Lack of a supportive environment and popular media have increased the public's perceptions of dangers facing their children while walking to school or playing outside (P7). These findings echo the findings of research done in the United States (Centers for Disease Control, 2002). Linked to this are other poor environmental conditions that hamper walking. Lack of sidewalks and poorly connected streets in newer neighbourhoods and unfriendly industrial incursions in neighbourhoods of lower socio-economic standing add to the perceived dangers facing young children walking to school and getting exercise from play outdoors (P2).

Loss of Free Play

Free play by children used to be a major source of physical activity but is no longer. Several participants relayed personal experiences of going out into the neighbourhood to play after school and not coming in until suppertime. This is not what they see now. As one school administrator sees it, "the generation that is now parenting elementary school children does not deal with down time very well" (P8). Working parents are busy and want to fill their children's lives with what they perceive as quality experiences. Busier parents try to schedule more into the lives of their children. Play is perceived as wasted time that could be better spent in a structured program learning an activity. Today's parents are less likely to let children get exercise through simple, unstructured play (P8). However, enrollment in programs is costly and travel to the program results in more time spent sitting in the car. In seeking more quality activities for their children parents may have inadvertently reduced the quantity of time they spend being active.

Technology-based Entertainment

Perhaps the most widely acknowledged societal factor that has reduced physical activity is the growth of technology-based entertainment. Technology, including video games, television, computers, MSN, (P6, P12.2) and our dependency on it, have reduced daily activity for adults and children alike. Participants recognized that we have chosen a faster pace of life to try to achieve more benefits for our children (P12.2). There are social expectations that everyone possesses a television, a computer, video games for kids, and DVD players in the cars. There are screens everywhere and screen use is inherently inactive. (P15)

Urban Sprawl

Changes in the built environment of North America over the last century have been dominated by the growth of cities. Cities have expanded over farmland and forests at a rapid pace. The result has been urban sprawl. One definition of urban sprawl is dispersed, auto-dependent development outside of compact urban and village centres, along highways, and in rural countryside (Frumkin, Frank and Jackson, 2004). Urban sprawl is also described as the combination of low density, low land use mix, low connectivity, and automobile dependency.

Frumkin, Frank and Jackson (2004) have examined how the built environment, specifically the auto dependent urban sprawl has impacted on the health of North Americans. They also discuss how the built environment can be designed to promote physical activity, and thereby promote health. They describe physical activity as either recreational or utilitarian. Recreational physical activity has a different impetus than utilitarian. Recreational activity is done for the purpose of getting exercise while utilitarian physical activity is done in the course of completing other tasks. Walking to school is a utilitarian activity. They indicate that the built environment can influence both recreational and utilitarian physical activity. While recreational physical activity requires a high level of motivation to engage in on a regular basis over a long period of time, utilitarian activity can be more easily built into a daily routine. Urban sprawl has particularly impacted utilitarian physical activity, thereby removing the easiest way of integrating physical activity into our lifestyle.

It was the increase in automobile use that started urban sprawl. As automobiles became more common, undeveloped land on the fringes of urban centres became much sought-after real estate. According to Frumkin et al. by the mid-1920s automobile ownership was an essential part of normal middle-class life. Road building became a publicly funded enterprise rather than dependent on another model such as user fees. This policy development greatly subsidized and encouraged driving. By the 1950s, the term urban sprawl had been coined and today it is a term used in common language. While road building became a public enterprise, public transportation was seen as a private initiative that needed to be self-supporting. These assumptions survive and operate even today. This has slowed the growth of effective public transit systems in many metropolitan areas. Users of public transit are utilitarian walkers as they must walk between the transit stops and their starting points and destinations. This type of walking usually amounts to several blocks per day for a transit user. Car drivers are deprived of this physical activity.

Reductions in the subsidies to public transit and the focus on road development have started a cycle that is difficult to stop. Because of poor public transit and good, free, roadways, citizens find it easier to commute by car to neighbouring municipalities surrounding an urban centre. As they move outside of the city, their tax dollars go with them thereby depriving the city of the funds needed to develop a stronger public transit system, and so the cycle goes. The emphasis on roadways has changed the nature of cities downtown areas. Roadways now move the people out of downtown after the workday making many downtowns places to work but not live.

Similarly, zoning laws act to increase the distance between employees' homes and places of work. While this was sound reasoning during the times of dirty industrial manufacturing, it is not relevant in times of cleaner industry and service industries. However, the legacy of these policies have entrenched urban sprawl in our landscape.

Frumkin et al. point out that inactivity and overweight and associated conditions have emerged in tandem with urban sprawl. "There is growing evidence that the physical features of urban sprawl discourage physical activity, and thereby contribute to these epidemics" (p. 107). Urban sprawl and car-based transportation dominate development in North America, but this is not the case in Europe. Countries that have a combination of a walkable built environment and supportive social attitudes have over 30% of trips in urban areas made on bicycle or foot. These countries include the Netherlands, Sweden, Denmark, Austria, Germany, and Switzerland. Features of the physical environment that are determinants of physical activity are overall neighbourhood design features, density, land use mix, the presence and quality of sidewalks and footpaths, enjoyable scenery, the presence of other people who are physically active and safety. The possibility exists for these to be built here as well.

High-walkable neighbourhoods have high density, mixed land use, connectivity of streets, good walking infrastructure, pleasing aesthetics and safety. Areas with the highest density of housing units have been shown to have 14.9 % of trips by walking or bicycling which is nearly fivefold that of the less dense neighbourhoods. Walking is increased by mixed land use because people are more likely to walk when there are a variety of types of destinations within easy walking distance. Connectivity of a simple grid pattern, where one can 'walk around the block' is greater than in neighbourhoods with cul-de-sacs and lollipop loops that offer fewer and more circuitous travel routes. Low connectivity is a key driver of automobile dependency. Good quality sidewalks and footpaths encourage both recreational and utilitarian walking. Similarly, people walk more in attractive places that are aesthetically appealing. Whether they are companions or just others outdoors in the community, people being physically active attract more people to do the same. The presence of other active people also adds to the perception of safety, an important factor for making people comfortable while walking.

When the circumstances facing Alberta's children are considered, the negative impacts of urban sprawl may have an exaggerated effect on children as compared to adults. Children have less freedom to make their own choices about transportation (Frumkin et al., 2004) and they may be faced with school environments that have reduced the physical activity opportunities over time. Living in a sprawling community is likely to remove opportunities for bicycling or walking to schools or shops. Travel of long distances is likely required to attend after school or evening activities making the children further dependent on their parents and their cars for transportation.

While they write extensively about the relationship between urban sprawl and public health, Frumkin, Frank and Jackson (2004) point out that sprawl is not the only culprit in inactivity, overweight and related conditions. They clearly state that dietary changes, the ubiquity of television and computer screens and societal attitudes have impacted these problems as well.

The perception of these major, culturally ingrained factors as the causes of insufficient physical activity in children does not identify one single and simple solution or a single actor to solve the problem. The situation calls for an integrated strategy of policies and initiatives, of which physical activity linked to the school setting is one. To better understand the role that schools have had in the promotion of physical activity in the lives of Alberta's children, the following section outlines the events surrounding physical activity in the schools since the 1970s.

Chronology of Physical Activity in Alberta's Schools

The decades since the 1970s have been a time of change for our society and the aspects of it which influence the amount of physical activity children receive are no exception. The two-car family and the influx of multiple televisions and computers into households are societal changes that have drastically impacted physical activity patterns. There was agreement among all research participants that the level of activity in children's lives today is less than it was in decades past, however, actors surrounding the issue of insufficient physical activity in children recognized the problem at different times between the 1970s and the early 2000s. Dates at which the issue was recognized varied with sector and with the interests of the organization or individual and this chronology is outline below.

Table 1

Chronology of Physical Activity in Schools

Date	Event
Late 1970's, early 1980's	Physical education teachers and health professionals notice changes in fitness levels and body weights of children
1980's	Growth of the active living movement in Canada
Circa 1992	Development of heart health initiatives
mid 1990's	Health organizations adopt population health perspective
1998	Alberta Community Development releases the Active Living Strategy
Late 1990's	Health organizations and researchers scan environment, prove children are insufficiently active, and launch programs to address issue
Late 1990's	Some schools integrate physical activity into non-traditional classes
2000	Alberta Learning launches new active living-focused curriculum
Early 2000's	Education sector creates organizations to increase physical activity
2001	News about rising obesity rates begins to be covered in the media
2003	Oberg announces all students will participate in DPAI
2005	Daily Physical Activity is launch in Alberta grades 1-9

Physical education teachers and health professionals were the first to recognize the problem, stating that concern about levels of physical activity had always been present. They were unable to identify a date or event at which the issue first arose (P1, P12.2, P16, P17). They feel that changes in the fitness levels and body weight of children began in the late 1970s and early 1980s. During these decades research participants from these fields read about changes in their professional literatures. Initially research relating to the obesity in children and its causes was published in scientific journals only. Since the late 1980s, however, physical education teachers and health professionals have seen obesity occurring within their schools and practices.

It was this first-hand experience with insufficient physical activity and its consequences that sparked the active living movement. People involved in active living identify the 1980s as the decade during which active living became a concern and organizations such as the Alberta Centre for Active Living were started to promote it.

Around 1992, heart health initiatives were developed that heightened the need for regular physical activity (P1, P13). This emergence of programs targeting heart health was identified as a key event triggering interest in increasing physical activity within the population. Towards the end of the decade there was a growing mass of researchers and health professionals interested in working in the field to increase physical activity and reduce overweight and obesity (P15). At this point the Government of Alberta joined the promotion of active living. In 1998 Alberta Community Development outlined its Active Living Strategy (Alberta Community Development, 1998). The strategy called for actions to be taken at a number of levels by a variety of organizations internal and external to the provincial government. The strategy included a number of recommendations aimed at children in the school setting. Stakeholders have identified the strategy as instrumental in bringing attention to the issue of insufficient physical activity and in identifying roles for stakeholders in addressing it. By this time some national organizations and more decision makers within the provincial government had recognized physical inactivity as a problem.

At this time health organizations were moving toward adopting the population health perspective. This was due to the diffusion of the social determinants of health approach. This was marked by a move away from a focus on those already suffering from a condition to seeking to improve the conditions of an entire population to prevent negative health outcomes (Public Health Agency of Canada, 2004). Spreading awareness of the social determinants of health steered interventions away from the individual toward making societal, system-wide changes. The health sector identified the schools as the best point of access to school-aged children. Schools were already used as a setting for preventive initiatives such as immunizations. Health professionals concerned with halting obesity saw a need for interventions in the school setting in both nutrition and physical activity.

Later in the 1990s, senior leadership of health organizations and researchers who conducted environmental scans of schools were recognizing that insufficient physical activity was an issue. As information reached high level administrators in the health sector and they began to see the negative health outcomes associated with physical inactivity they recognized that they were in a position to take action to resolve the problem. Acting within their own health organizations they launched programs to increase physical activity and reduce obesity in children (P15).

Around the same time, at a number of schools in the province, staff, principals and administration saw the importance of physical activity and integrated it into non-traditional curricula. Using innovative teaching techniques, physical activity was incorporated into subjects such as social studies and science in addition to physical education classes. However, because these ideas were new and not widely accepted, this change was limited to a small number of classes and schools.

When the physical education curriculum was redesigned in 2000, curriculum developers sought a curriculum that would establish long-term active living habits in students. Emphasis was moved away from traditional competitive sporting activities to cooperative activities and more individual activities to enhance fitness. These types of activities are considered the type that students would continue beyond their lives in school creating a lifetime of activity.

Early in the new millennium organizations devoted to increasing the physical activity of children were emerging. Within the education sector health and physical education teachers had raised the issue of insufficient physical activity to the point it was being recognized as a problem requiring action. To do so, they created organizations within the education sector to deal with health and physical activity issues. The Alberta Teachers' Association (ATA) Health and Physical Education Council (HPEC) launched its special projects, Schools Come Alive and Ever Active Schools. Another organization started at this time and driven by educators and other school stakeholders is S.H.A.P.E. which promotes activity among kids with an emphasis on walk-to-school programs. As these programs have gained profile among the general public, the issues that they are addressing have gained profile, too.

In the early 2000s, news of growing rates of obesity was common in the popular news media reaching a point in 2005 where individuals felt the message was everywhere, coming from many sources. Interviewees had noticed that obesity and physical activity were receiving more coverage in the mainstream media rather than just in professional literature (P3, P6, P8). They identified the increased media coverage as the cause of rising concern about obesity and physical activity among parents and the general public. News and popular media have also been covering research and public perceptions regarding lower levels of physical activity in both children and adults. The message that we need to be more physically active is ubiquitous. Now the popular news media is covering stories about inactivity and obesity in children on an almost daily basis.

Rather than the media, other parents credit their personal experiences and those of their children as bringing about awareness of issues relating to child development. Some parents first became concerned about physical activity of their children when they entered school or when they became involved in parent councils and began interacting with others who are concerned about the issue (P4, P6, P12.1).

Despite the media coverage and growing concern among parents, it was not until 2003 with the announcement of the DPAI that all teachers and administrators realized the importance that Alberta Education/Learning was putting on getting children to be more active and the role they were to play in doing so. Because increased rates of obesity are not evident simply through observation of a group of students, educators other than physical education instructors did not recognize that inactivity and obesity were a problem among their particular student body (P8). Instead, educators noticed that children today are less capable in terms of their ability to play games and sports than they were in decades past (P8, P9). More recently, additional programs operated by health, physical activity, and active living organizations have begun to address physical inactivity and obesity in children.

Since school councils were mandated in the mid-1990s they have become a venue for discussing concerns about schools including the physical activity available within the school. Within school council forums one or two parents usually raise the issues to a level where they are generally discussed by those attending the meetings. School councils are often engaged in building playgrounds, which fosters physical activity, and they seem to have the capacity to work on other active initiatives as well.

Today the education system uses consultative methods to gather information from school communities. One school jurisdiction collects information for use in setting priorities through public consultations. Stakeholders, parents, members of the community-at-large, students and staff identify issues of concern and express them to the jurisdiction during public consultations. Another jurisdiction described discussing the health of the student body and the role of the school community in supporting it at a consultation session (P12).

The message that insufficient physical activity is increasing among children and has harmful effects is now pervasive. One interviewee summed it up as "the message that we need more physical activity is found anywhere we go on a daily basis" (P9).

The definition of the problem has changed over the years. Once obesity was a term used mostly by clinicians. Later it was adopted by the education sector. Now, however, the term obesity is used broadly in the media and is familiar to the general public. One individual pinpointed the 2004 documentary *Supersize Me* (Spurlock, 2004) and the hype surrounding it as the tipping point in bringing the problem of obesity to the forefront of public concern (P15).

The preceding chronology of major events in Alberta's school system along with the societal factors impacting physical activity provides the broad context within which the policy actors influencing physical activity in Alberta operate. In the following section this thesis will look at factors specific to each key policy actor (institutions, interests, and ideas) to identify the manner in which these factors influence the policy processes.

Analysis of the Institutions, Interests and Ideas Influencing Policy Actors

Institutions, interests and ideas are the elements of the policy environment that determine the manner in which the policy process proceeds. The activities that the members of the policy community surrounding childhood physical activity have undertaken to influence policy related to the physical activity of students are a product of the ideas, interests and institutions and illustrate the fundamental beliefs, values and constraints impacting the organization or individual. The following discussion will analyze the characteristics of these elements and determine how they have acted, either as facilitators or barriers, to the adoption or neglect of physical activity. It will then discuss more specifically the factors influencing DPAI or WTS initiatives as a means of increasing physical activity of children in the school setting.

Alberta Education

The institutions within Alberta's education system stem from the School Act administered by the provincial ministry, Alberta Education (Government of Alberta, 2001). The School Act covers all areas of operation of primary and secondary schools in

Alberta and, as suggested by Goldstein (1993), it determines the types of policies that schools can create and limits the actions that schools can use to implement the policies.. Affecting physical activity in the schools are areas of the act that deal with such things as the compulsory nature of the education, the powers and responsibilities of school boards, the role of the principal in the school, and the creation of school councils. The School Act has a regulation that outlines the transportation that jurisdictions must provide for their students. The School Act states that the Minister of Education has control of the courses of study, programs offered and the time allocated to them. It also touches on the obligation of the school boards to provide transportation of students to schools. The School Act makes the school boards responsible for providing the schools and maintaining them in a manner appropriate for teaching the curriculum set by Alberta Education. These institutional factors offer some strengths and barriers to schools as settings to implement population-based health promotion interventions. The institutional factor that school is compulsory enables schools to reach a very large proportion of the target population. On the other hand, the school act divests power for the implementation to the school boards who in turn divest responsibility to the individual schools, thus weakening the accountability of the system.

The mandate of schools is focused on teaching the academic curriculum. Embodied in the mandate are the ideas that direct the schools. As described by Lavis (2002), the ideas can be made up of research and information as well as values and beliefs. Focusing the mandate on academic achievement expresses the education system's belief that academic results are of greater importance than the health of the students. This is further upheld by the monitoring of the academic results of students and the assessment of schools on the basis of these results. While this hierarchy of interests is visible at the level of the individual school, it is a systemic issue beginning at the higher levels of government. These interests are expressed in the mission statement of the department:

> The Ministry of Education, through its leadership and work with stakeholders, ensures that students attain the knowledge and skills required for lifelong learning, work and citizenship (p. 132). (Alberta Education, 2006a)

This statement guides Alberta Education, the school boards it creates, the individual schools operated by the boards and the staff within them. In aligning itself with the goals stated in the Government of Alberta's current business plan, Alberta Education supports the goal that Albertans will be healthy. The department business plan also states that Alberta Education will support the Health Innovation and Wellness Initiative, a cross-ministerial initiative that calls on Alberta Education and Alberta Health and Wellness to work together to maintain and improve the health of Alberta's children. The business plan states in Strategy 1.2 that the department will implement the Kindergarten to Grade 12 Revisioning Plan with a focus on working with stakeholders to support school-based initiatives to address all components of wellness, including daily physical activity (Alberta Education, 2006a). When compared to the mission statement of the organization, a strategy in the business plan will not influence the actions of the organization to the same degree. While the health of students is not completely ignored, it is subsidiary to academic achievement. Accordingly, the three goals for Alberta Education state that academic achievement is paramount. Excellence in student learning, as measured by results on Provincial Achievement Tests given in language arts, mathematics, science, and social studies, along with drop-out and completion rates are the main assessments of student outcomes. None of the performance measures relates to the physical activity or health of the student population. While the one strategy to work with Health and Wellness on a wellness initiative is named, it is not clear how or if it will be measured. This is a weakness in the institutional structure of the education system to support the health of students.

In 2000, Alberta Education launched a revised physical activity curriculum that focuses on encouraging life-long, active living. This new curriculum was addressing the issue that a large percentage of students discontinued being physically active after completing compulsory physical education and never regained an active lifestyle in adulthood. It is not clear that the teachers responsible for implementing the new curriculum grasped the reason for the changes. The new curriculum is broad enough to allow teachers to continue to offer a sport-based physical education program rather than moving to the active living model. While the new curriculum was developed with good intentions, research is required to see if it is influencing students to adopt active lifestyles as adults.

Alberta Health and Wellness

The mandate of Alberta's health department has traditionally been to provide health care services. Under Minister Gary Mar the term wellness was added to the departmental name in an effort to emphasize the role the department has in maintaining the health of the population as well. The current mission statement of Alberta Health and

Wellness is to "Provide leadership and work collaboratively with partners to help Albertans be healthy" (Alberta Health and Wellness, 2006a, p.180).

The Alberta Health and Wellness Business plan mentions education as a determinant of health and a tool necessary for individuals to choose a healthy lifestyle. The plan stops short of linking with the education system to address these needs. Cross-ministry collaboration was named as a tactic of the Third-Way program to improve Alberta's health system. However, in January of 2007, with a new premier and cabinet in place, the Third-Way reforms are no longer being considered (Markusoff, 2007). While the cross-ministry collaborations are not closely related to the controversial part of the Third Way which would have allowed Albertans to pay for faster access to non-emergency health care services, it is unclear whether the idea of collaboration will survive without the remainder of the reforms.

Cross-Ministry Initiatives

As shown above, Alberta Health and Wellness is mandated to maintain the health of Alberta's children while Alberta Education has access and control over the children during the school day. This makes Health and Wellness dependent on the education system for access to the population and the implementation of school-based, healthy-living programs. Because the institutional structure of the departments keeps their areas of responsibility and the programs supporting them quite separate, historically there has been little cooperation on initiatives for children's health between the ministries.

In the Government of Alberta's Business Plan the following strategic priority is named followed by the name of the department with primary responsibility for it:

> Supporting the Healthy Development of Alberta's Children and Youth (Education) – Develop collaborative health, social and learning programs and services that ensure children and youth will be well cared for, safe, healthy and successful at learning (Government of Alberta, 2006, p. 26).

This indicates that it is the responsibility of Alberta Education to lead this strategy. However, on September 28, 2006 it was Alberta Health and Wellness not Alberta Education that announced five preventive health initiatives, two of which would operate through the schools (Alberta Health and Wellness, 2006b). Regardless of which department takes the lead on the initiative, they will clearly need to involve both ministries.

The two new initiatives of Health and Wellness announced in September 2006 plan to reach children through the school system. A Wellness Fund for Healthy School Communities will provide $1 million per year to support innovative initiatives that promote healthy living in school communities. Also, the Healthy School Communities Award will distribute $200,000 annually to recognize healthy living initiatives in school communities. These programs are, however, tiny when compared to the budgets of the departments with Alberta Health and Wellness spending $10 billion annually and Alberta Education spending $5 billion (Government of Alberta, 2006). When taken together, mission statements and business plans of the departments acknowledge that health has some responsibility for education and vice versa, but these documents that define the institutions do not bring together the strengths of each department to improve the health and physical activity levels of school children.

School Boards

Budgetary constraints imposed by government create barriers for school boards in general and physical activity programs more specifically (P11). Funding to schools is allocated by a formula based on the number of children enrolled at the school. Schools approaching their upper limit of capacity will receive maximum funding. Schools that drop below their capacity may find themselves short of funds. Budgets put limits on the availability of facilities and the access to specialist teachers (P8) thereby impacting the quality of the physical activity programs. According to the Coalition for Active Living (CAL), physical education in schools was cut drastically over the 1990s (Coalition for Active Living, 2001b). CAL feels this has not only had a negative effect on physical activity levels within the schools but that these cutbacks have contributed to the levels of inactivity in Canada.

Boards influence physical activity at individual schools through the physical education consultants they employ as resource people for teachers. They are a source of information and ideas about physical activity and have played an important role in disseminating information and resource materials about DPAI. Interviews revealed that the district staff does not recognize the value of walk to school programs. They do not view walking to school as an important source of physical activity. They place more value on structured physical activity in the school setting. This could be a barrier to the adoption of WTS initiatives by schools.

Working within the central office, school board staff use a broad definition when discussing the health of students. They incorporate physical, emotion and mental health when discussing student health. This is the definition of health that they work to pass on to teachers and principals at all of their schools. While this is a positive aspect of their outlook, another belief expressed was less reassuring. At one board they pointed out that there are many opportunities for students to be active if they choose to be. They pointed out that if students wanted to try out for teams or to use the facilities they could be active. This point of view puts the onus on the student to find the opportunities to be active. It implies that they are doing little to encourage the students, particularly the ones that may not already have active lifestyles, to be active. The school jurisdiction sees a role for itself in assisting parents to identify appropriate levels of activity and nutrition requirements for healthy child development. They feel that this is best accomplished by forming partnerships between the parents and the schools.

In the past, school boards had boundaries within which students had to live to attend a particular school. This was usually the school in the neighbourhood, within walking distance of students' home. In more recent years school boards have changed their policies regarding the schools that children can attend. This change in policy reflects a change in the ideas about what is more important for the students. Ideas are based on the values of the stakeholders (Lavis et al., 2002) and the shared beliefs held by the community (Goldstein, 1993). Offering program choice has become very important to the boards as their values have shifted in response to the changing beliefs of the stakeholder community. Parents are seeking specialized programs that they feel are most appropriate for the education of their children. Programs specializing in languages, fine arts, sports and alternative philosophies of teaching and learning are offered. As a result parents are less likely to send their child to the neighbourhood school. More and more children are traveling by car or bus to schools with these specialized programs. Because some programs are offered at only one or two schools in the city, children may have to make long trips in vehicles to reach the schools. Thus, the shift in ideas in the community and ultimately the board has precipitated the change from attending the neighbourhood school. Consequently, this has deprived children of the opportunity for the regular, moderate daily physical activity that they could gain by walking to and from school. There is no evidence that parents consider this when they are choosing schools for their children. This is likely because the ideas of parents and educators shifted based solely on considerations for improving teaching and learning rather than on a more holistic view of what is best for the child. Narrowly focusing on education when choosing a school rather broadly considering all the wellness consequences for the child has caused parents and the school system to eliminate trips to school as a source of daily physical activity for children.

Health Regions

Health regions are mandated to respond to regional health needs, including the needs of school children. Health regions and school jurisdictions have long been connected at the level of individual schools through the school nurse program. Community health nurses have regular contact with the schools to which they are assigned. However, limited resources prevent the nurses from having a large presence in the schools. Immunization programs make up a large part of the contact between nurses and schools. As a way of streamlining and standardizing the programs offered by school nurses, the nurses within a health region plan a calendar of health issues to address during the year, i.e., March is nutrition month. Resource materials such as handouts and posters are made available to the schools according to the calendar. Safety tips for walking and bicycling are usually covered by the resource materials. The nurses also act as resource persons on health, active living, and nutrition issues, and respond to health-related questions from school staff. The amount of material provided is based on the school's capability to deal with it (P17). The relationship between schools and community nurses is an avenue for information and ideas about promoting health to flow between the education and health systems but is strained by insufficient resources. At this time, the health regions have only a minimal influence on the uptake of physical activity initiatives in the school system.

Teachers' Organizations

The education sector has several organizations that filter pertinent health information into the education system in a format that is understandable and relevant to educators. These include CAHPERD, S.H.A.P.E., HPEC, and consultants in health and physical education employed by school boards. Teachers have been instrumental in forming the organizations that promote physical activity in schools. Two organizations are affiliated with the Alberta Teachers' Association through the Association's Health and Physical Education Council (HPEC). HPEC adopted a position in 1984 that called for Alberta schools to offer physical education on a daily basis based on the idea that daily physical activity maintains or improves students' learning. This position has been upheld by the organization for over twenty years while the body of research supporting the position has grown. CAHPERD, the national organization of which HPEC is the Alberta arm, has warned that physical education and physical activity are not the same things; that physical education goes beyond physical activity (Fishburne & Hickson, 2005). Physical education involves acquiring the skills to enable students to be physically active and fit and to appreciate and value physical activity as a form of enjoyment and self-expression. The DPAI initiative in Alberta is in addition to the physical education curriculum allowing students to both learn the skills and spend time participating in various activities. Teachers' organizations such as HPEC and CAHPERD are supportive of DPAI because it maintains the full physical education program and adds physical activity on the remaining days of the week which aligns with the beliefs held by the organizations.

Schools

The school setting is ideal to reach children with population-level interventions because the School Act states that children will attend school for approximately 190 days of each year. Once again, this is a product of the institutional factors guiding the school system. The school staff has contact with students over a prolonged time so teachers and administrators are well positioned to assess the impact health and physical activity has on learning and to intervene to improve both. Schools have delivered physical education programs of one type or another for many decades. In doing so the school system has built the infrastructure such as a gymnasium in each school, gathered the resources and hired the professionals to lead physical activity classes. In most cases, schools are fairly well equipped to offer physical activities. Some schools have found that they are lacking sufficient gymnasium time to offer either DPAI or physical education to every class on every school day. These schools have had to make use of the outdoors or alternate spaces in the school such as spare classrooms or hallways. Most, however, are able to overcome space limitations.

The main concern expressed regarding increased physical activity or other health interventions in the schools is the crowded curriculum. The schools feel the education curriculum is already full and there is no time available to add health interventions. Staff at the school level has felt a "cascading of responsibility for school health issues" down onto their shoulders (P13). This is an added responsibility that is not always welcomed by schools on top of existing pressures. This concern represents a conflict between the beliefs that are dominant in the health sector and those that dominate among educators. Because their education has focused on teaching, not all school staff feel comfortable dealing with health issues. Health issues, including physical activity, may not receive equal attention from all schools.

Because the success of a school is measured on its academic results, there is little motivation for teachers and administrators to devote time and resources to health issues. The measurement of academics shapes the interests of educators in favour of seeing students achieve academically. Physical activity may be the one exception to this because of the body of research that exists regarding the benefits regular daily activity can have for learning. Still, if teachers feel their students are receiving enough physical activity outside of the classroom, they may prefer to steal time away from physical activity to concentrate on academics. This underscores the motivational power of interests and the importance of aligning the interests of the actors with the desired outcomes of a program or intervention.

Educators believe academic achievement is their primary goal. The type of evaluation that occurs within the schools upholds this. Results in the core academic subjects are systematically tested province-wide in elementary grades three and six.

Results of these tests are published and the public ranks schools accordingly. Parents use these rankings in making choices about which school to enroll their children in. Because schools receive funding based on the number of students they have enrolled, schools attempt to maximize their enrollment. As a result, the rankings become a key marketing tool for the school. Because neither physical activity nor physical education are evaluated, schools may be tempted to reduce resources and effort put to these areas in favour of emphasizing academics. Thus, the evaluation system, by further shaping interests within Alberta schools works to reduce the salience of the problem of insufficient physical activity as compared to academics.

Further supporting the importance of interests in directing the behaviours of actors is the following observation of an interviewee. From the perspective of an individual working within a non-profit organization supporting schools, it appears that schools are not "begging" for more physical activity. There is the understanding that physical activity is important but school improvement plans and their concomitant initiatives focus most often on improving results in the core subjects (P13). This individual believes that because neither physical education nor daily physical activity are measured in a systematic manner they are of less importance than the core subjects.

School-based decision making is a policy outlined by Alberta Education (Alberta Education, 2003). The policy is designed to give a school and its community the authority and the support to make decisions that directly impact on the education of their students. It gives freedom to administrators and teachers to deal with issues as they feel best suits their school, but it also includes the responsibility to be accountable for the decisions. Within this policy structure, principals have considerable power to shape their school's learning environment. School-based decision making gives principals the freedom to define the direction and emphasis their schools will take. For example, according to one interviewee, a "willing principal can make physical activity happen" (P7). Ways in which a principal can influence the level of physical activity within his or her school include: determining the skill set available within the school staff through the implementation of school-level hiring practices (P12.2), controlling the activities offered in the school by the parent council (P11), and by acting as a champion for physical activity (P13). One observer of Alberta's schools feels that leadership from a principal who understands the 'big picture' is needed to move health ideas forward within a school (P13). An administrator stated that "The kinds of non-legislated opportunities for kids in schools are directly correlated to who is in the school" (P8). This may be parents, staff or a combination. "Key players strategically placed cause the wheel of activity to turn and gather commitment" (P4). The school-based decision making policy in effect raises the importance of values and beliefs of individuals within each school community. The individuals' personally-held ideas become relatively more important that those held by the school authority or the ministry of education because the individuals have the power to make decisions about any aspect that is not directly prescribed by a higher level policy. Consequently, in addition to allowing the tailoring of elements to the needs of a particular school, it also diminishes the conformity of physical activity opportunities across the school system.

School Improvement Plans are used by schools to identify areas for growth and improvement to enhance student learning (AISI Education Partners Working Group, 2004). While it is recognized that physical activity is important, it is hard to incorporate into a school improvement plan because the plan's main evaluative measure is improvements in learning. Measuring the impact of physical activity on learning is not easily done; therefore, physical activity initiatives are not often undertaken (P4). Even individuals that really value physical activity have to downplay it in their School Improvement Plans and put more emphasis on core subjects. Again, the evaluation of the school system shapes interests against physical activity.

Varying from school to school, expectations regarding the provision of physical activities cover a broad spectrum. Some parents see the provision of physical activity opportunities as the role of the school staff. They feel that children should get exposure to various types of physical activity and spend a significant amount of time doing physical activities so that it is not necessary for the parents to arrange structured activities for the children after school hours. On the contrary, some school communities do not value physical activity during class time. Some families have the belief that their children should focus solely on academics at school and that parents are responsible for physical activities outside of school. Similarly, physical activity may take on a lower priority within a school dealing with a high population of special needs students. The composition of the student population affects the value a school community places on physical activity.

Some school communities have parents with more time to volunteer and a belief that they should contribute to providing physical activity opportunities for the students in addition to those in the curricular physical education or daily physical activity program. Expertise and assistance from the parent community is often welcome. Teachers have a very full load so it is in the interest of teachers to encourage initiatives that involve other members of the school community (P7). These schools are able to offer more activities both in the school and through field trips. In one case, the school council spearheaded a walk-to-school campaign under the lead of a "very determined parent" (P4). The parent presented the walk-to-school idea to both the student council and the school council and got support from each (P5). In another, school parents worked at teaching playground games and skipping rope to the children. In certain schools it is not uncommon for parent volunteers to assist with activities (P11) or, as is the case in some schools participating in the Ever Active Schools (EAS) program, parents have been the catalyst for the school to become a member of EAS (P7).

Generally, schools have more success recruiting volunteers for once-a-year events such as the annual Terry Fox Run rather than ongoing daily or weekly programs. This is because most parents have limited time to volunteer at the school because of work or other family commitments. One administrator cautioned that requests made of the school community must be in line with the capacity of that particular community. Parent volunteers will suffer burnout if over taxed (P8).

As shown in the above example, determined individuals, or champions can act as catalysts for physical activity initiatives. Champions exist at each school level (elementary, junior high, senior high) that "support physical activity in the schools and see its value in terms of enhancing the day in the life in our schools" (P12.2). Champions may be a physical education specialist (at the junior and senior high levels) or an interested generalist teacher (at the elementary level) or even a supportive parent or administrator. Champions are the individuals who are most likely to raise concern over physical inactivity of children. In the policy process, champions act as policy entrepreneurs. As described by Kingdon (1995) a policy entrepreneur expends time and energy to raise the profile of an issue in which they are concerned. In the examples above, the champions are working at the school level to introduce policy innovations which as Mintrom (2000) describes, is their goal.

Some schools have started promoting physical activity initiatives for reasons other than to increase physical activity. Active transportation is one such initiative. Improving the safety of students around schools by decreasing motorized traffic has been identified as a primary goal of walking and bicycling initiatives. These initiatives are driven by school community members whose primary interest is safety, not physical activity. Still, in the end, more children use active transportation. This example points out how reframing an issue to be an idea in good currency can increase its importance (Pal, 2001).

Educators

The principal and teachers within each school have the ability to shape the culture in the school in ways which can either enhance or detract from the physical activity orientation of the school community. This is due in part to the policy of school-based decision making, discussed earlier. Institutional factors outlining the responsiblities of principals give them responsible for the safety of the students in all school-sanctioned events. Thus, the principal has a voice in the physical activities occurring at the school. The principal monitors the safety of the activity and the liability risk the activity presents and considers both in his or her decision to allow the teachers or the parent council to conduct an activity.

Despite the oversight of the principal, teachers are extremely influential and have a great degree of autonomy when it comes to determining what happens in their classroom (P15). The level of activity within each class is described as teacher-specific. Physical activity is likely to be driven by the personal values and beliefs of the teacher in spite of what even the principal may want (P15).

Implementation of physical activity is very dependent on teacher expertise and teacher motivation. In elementary schools, a generalist teacher, not a physical education specialist, usually delivers physical education and DPAI activities. Therefore, the quality of the delivery of both DPAI and physical education depends on the skills and the interests of the individual teacher (P8). By selecting individual teachers with strong backgrounds or personal commitments to physical activity a principal can heighten the quality and increase the emphasis of physical education and activity within the school. Some consider the lack of physical education specialists at the elementary level to be a problem in the delivery of quality physical education and daily physical activity programs (P3). A large amount of in-service training is required to prepare non-physical education teachers to deliver quality activity classes (P3). Many teachers agree that physical activity is important but many are searching for ideas they can use to incorporate physical activity into the classroom.

Choosing a physical education specialist in the teacher mix will emphasize physical activity within the school. Most junior high and high schools have specialists teaching physical education while most elementary schools do not. The model of one generalist teacher instructing a single class in all subjects is preferred for the younger children in elementary schools (P8). Most elementary schools will choose to have only one subject, or possibly two, subjects taught by specialists. Music, second languages, health, and physical education are all subjects for which a specialist may be hired. The competency which classroom teachers feel they have to deliver these subjects by themselves plays a role in the decision to hire a specialist. For example, if a number of teachers in the school do not feel they are able to teach music well then they may request that the principal hire a music specialist to do so.

Educators view physical activity in schools as a support to academics. Most educators hold the belief that physical activity can improve learning performance in the classroom. As discussed earlier, this belief is supported by research. Behaviour and attention in class are identified as major benefits of physical activity in the school setting. Teachers believe students' attention to lessons is increased by regular physical activity. Physical activity is also believed to offer students a form of connectedness with their school and this connectedness is believed to reduce behaviour problems, thereby improving all-round performance in school.

There is general agreement that DPAI and more physical activity in the school setting is good, yet there are several issues competing for attention within the school setting. The school curriculum within Alberta is described as "crowded" (P1.1).There is a limited number of instructional minutes and a great deal of material to cover at each grade level. Curricular expectations have increased over the years so teachers are less willing to take time away from the four core subjects that are being formally assessed (P8). Teachers are being held accountable for core subjects and this drives where the emphasis is put. In addition to the core subjects, a new second language initiative is being developed and a brand new social studies curriculum was introduced for grade three in 2005. Schools that include religious studies or that offer a second language have more time pressures. These are all competing for teachers' time. All of these initiatives are coming from Alberta

Education. School staff feels the department is not being sensitive to the multiple demands they are placing on schools (P1.1, P 13).

The ideas of educators influence the way in which they see the problem of insufficient childhood physical activity and the resulting condition of increased obesity. Educators take a holistic view of the well-being of children and in this sense they are concerned with obesity. Health implications related to obesity are always in the background of decisions made to encourage active lifestyles in children (P2). They are especially concerned with health issues in students if the conditions in their schools are contributing to them in a negative manner (P8). However, in the education sector, obesity is not a term that is widely used. The primary interest of teachers and the education system is the academic achievement of the students while health, physical activity and healthy body weights are secondary issues. The term obesity has been widely used in the media and because of its outwardly visible physical manifestations, is the outcome of poor nutrition and insufficient physical activity which receives the most attention in the general population.

Two reasons obesity is not a primary concern of educators were expressed. One administrator believes obesity is not a large concern among school administrators because obesity in a school population is not an obvious condition that can be observed simply by looking at children on the playground (P8). There may be one or two larger children but the majority look fairly normal. Based on this belief the administrator defines the role of the school as providing students with quality information and understanding about why they make the choices they do relating to physical activity and nutrition (P8). The other reason is that obesity is not directly related to poor academic achievement. Obese children do not necessarily have poorer academic standing than children with normal weights.

Rather than focusing on obesity, educators are more focused on the conditions that contribute to obesity - poor nutrition and insufficient physical activity. This is because these conditions also impact student learning. A fine line exists regarding what is considered appropriate concern and interference into the lives of students and what is not. This line is defined by the beliefs of parents and teachers regarding their relationship and the division of responsibilities. Factors directly affecting the learning of a child such as behaviour in class and completion of homework are accepted as areas in which it is appropriate for a teacher to show concern, model behaviours and offer correction to students not meeting expectations. At the other end of the continuum are the lifestyle habits which are the responsibility of the parents and little interference from the schools is welcomed. In between, there are issues for which education on the topic is accepted but efforts to change the student and family behaviour is not. Many health topics fall within this area. For example, teaching about the Canada Food Guide and the biological needs of the human body for proper nutrition are acceptable topics of study. However, notes going home from the teacher about the inclusion of too many sweets in the child's lunch are not. Similarly, offering physical education and DPAI as part of the school curriculum is acceptable as is teaching about the needs of the human body for physical activity, but expressing concern about an individual student's physical activity level outside of class is not. This is likely to be construed as interfering with parenting choices made by families. Situations in individual schools and between individual teachers and families differ, but follow similar patterns.

Based on responses from interviewees, it appears that educators specializing in the fields of physical education and health hold slightly different beliefs regarding physical activity, obesity in children and the role teachers and schools have in these issues. Educators with a physical education background are keenly aware of the connection between physical inactivity and the resulting condition of obesity and the increased amount of data showing the health problems stemming from obesity (P2). Physical education and health teachers in particular have led the interest in student health. Some have advocated Alberta Education for more physical activity because they see the health of children suffering from insufficient physical activity. They feel the schools can be part of the solution to health problems related to obesity, if they are given the resources to implement initiatives. Through their professional organizations, HPEC and CAHPERD, they have called for daily physical education, citing the benefits to both children's health and learning. They have worked to share their beliefs with all members of the teaching profession.

School staff believes it is impossible to hold either the school or the family wholly responsible for an individual student's level of physical activity. A single solution in just one setting of children's lives is unlikely to address the problem of childhood obesity or insufficient childhood activity. This points to the need for ecological interventions that address both home and school.

As educators with physical and education background become school principals and staff at jurisdictional central offices, they continue to disseminate their values about physical activity and the role schools have in delivering it. They are also taking on roles wherein they have more power to influence greater numbers of students. This scenario has been demonstrated by a number of the research participants in this study.

To summarize, principals have a great degree of influence over the culture of physical activity adopted in a school and teachers have control over the implementation of physical activities in the classroom. This has led to wide variations between schools and between classes regarding the physical activity opportunities offered. At many schools, staff, principals and administration have seen the importance of physical activity and have been integrating it into many curricula and school life for a number of years (P9, P1.2, P2). One administrator expressed that there is greater success and more progress when physical education is taught everyday, to the benefit of both students and teachers (P2). Principals and teachers that incorporate more physical activity into the school day are acting on the belief that physical activity enables better learning by students. This belief is supported by research in this area. They are also likely to value physical activity in their own lives and choose to model this for their students. Others expressed they feel that it is their duty to provide physical activity opportunities for children when their parents can't or won't. Some teachers do not express the specific benefits of physical activity but believe there is an intrinsic value in being active which need not be justified by other outcomes. Physical activity is 'good for you' and that is all they need to validate the time spent on it. Whatever the reasons may be, educators perceive they are acting in both the best interest of the students and themselves when children are receiving adequate physical activity in the school setting. This idea was central to teachers' acceptance of the DPAI.

School Administrative Personnel

A huge volume of promotional materials of all sorts, including information about physical activity initiatives arrives at each elementary school. Schools lack the staff capacity to handle this 'bombardment' of information about health-related issues (P8). Much of the information about physical activity events is from charitable organizations wanting the schools to host physical activity events as fundraisers for their causes (P8). In an effort to manage the material that arrives, one school principal described how his administrative assistant vets all material prior to him receiving it (P8). In this situation the administrative assistant becomes a very powerful gatekeeper at the school level. His or her values are reflected in the types of material that get passed on to the principal versus that which are discarded. These decisions may or may not be congruent with the values of the principal, the teachers, and the larger school community.

Parents

Parents are the key stakeholders of the education system. The interests of parents drive not only the parents' actions but also the actions of the entire school system. Parents are part of the electorate choosing both members of the legislative assembly and school board trustees. Parents of school children are as diverse as the population of Alberta and therefore have a large variety of interests. But there are some interests which can be ascribed to all parents. These interests are the wellbeing of their children, including good health and education. The differences emerge when considering the emphasis which is placed on each. Some parents place more importance on the academic achievements of their children. Others are more interested in developing an active lifestyle in their children as a condition for health. It is the challenging task of the school system to please both types of parents.

Some parents place a very high priority on the academic achievement of their children and a lower priority on physical activity. It is not that they do not see a need for physical activity, rather it is not as important as education. Because most children are healthy most of the time, health is taken for granted. The implications of insufficient physical activity are chronic diseases manifesting later in life and are not top of mind for most parents. As one interviewee put it, "academics win out over physical activity" (P11). Physical activity becomes of greater interest if it is linked to helping children academically. It is counterintuitive that taking time in school away from core subjects and devoting it to physical activity improves academic results. While the research supporting this fact is well known and understood by educators, it is not known by all parents. They work with their children at home to achieve better grades and they prefer to see the school focus on academics as well. Other parents are interested in having the school offer education in both academics and other areas including physical activity and fine arts. These parents may feel they do not have the time or the expertise to help their children in these areas but still want their children to be exposed to them so they want the schools to do so.

Parents of children in Alberta's urban schools come from all walks of life. The diverse population of Alberta is represented among parents and because of the diversity, their ideas regarding physical activity are not easily generalizable. Information captured in this research showed that ideas of parents about physical activity vary with cultural background, socio-economic status, language skills, work arrangements and time availability. Ideas differed regarding the severity of the impact of lifestyle change, the manner in which it should be tackled, and who holds the responsibility to do so.

Some parents have realized that changes have occurred in Alberta and all western societies which have reduced the amount of activity children get. These parents see that because children walk less and engage in less active play, they are in need of more opportunities for physical activity today than when they were children. As one person put it, “systematically our society has taken physical activity out of our daily lives” (P9). Contributing to these changes are car culture, fears of traffic and crime dangers and time pressures of dual working parents. It was commonly expressed that personal experiences rather than any specific advocacy have brought the issue of insufficient physical activity in children to parents’ attention. They recognize that they were very much more active as children than their children are today. These parents believe that the school has a role to play in modeling a healthy, balanced lifestyle that incorporates both academics and physical activity.

While parents are aware of the need for physical activity for the health and optimal learning of their children, some are not willing to sacrifice a strong academic education for it. These parents believe children do not get enough physical activity because the academic pressures are quite high, the time required to succeed academically is great and the work required to succeed is sedentary. They feel there is not enough time for their children to be more active.

Still other school communities comprise families who value the academics offered by the school and, therefore, prefer to provide physical activity through sports teams, clubs, and activities outside of school hours. “There are lots of opportunities in the community, i.e., the YMCA, after-school programs" (P5). Some people feel that today there are more opportunities for sports which didn't exist before and this counteracts the problem. As a result, some children are very active.

In other schools inactivity is not even a concern among the parents and is certainly not viewed as an epidemic. Increasing physical activity has not become an issue among the members of the school community either because it is perceived that the children receive enough activity already or because other issues and concerns have received more attention.

Parents have many responsibilities regarding the academic achievement of their children. These responsibilities include providing a home environment conducive to learning, choosing the best school for the child, guiding them through homework, arranging tutoring if needed, ensuring they get proper nutrition and rest, and volunteering in the classroom at the school. The amount of responsibility parents feel for their children's academic achievement is influenced by the culture of the school the children attend and by their personal values and beliefs.

Policy Processes Impacting Physical Activity in Alberta's Schools

As discussed earlier, the problem of insufficient physical activity among school aged children has been growing since the 1970s. The health sector became aware of it early on while educators and the general public took notice in more recent years. In this section, the thesis will examine how the change in activity levels became an issue and moved through the policy process until a policy was implemented to address the problem.

Agenda Setting

Definition of the problem.

Simply making people aware that children are insufficiently active does not make it a problem. A set of conditions only becomes a problem when the conditions are at odds with values and are recognized as such (Alberta Heritage Foundation for Medical Research, 2005). The set of conditions addressed in the media include reduced rates of physical activity in children and increased obesity in children, sometimes leading to the early onset of chronic diseases. One interviewee noted that many years ago she heard someone say that what was needed for the general public to recognize insufficient physical activity as a problem was for children to start dying from lack of activity. Conditions such as dying children are so grossly out of synch with the values of our society that the issue could not be described as anything other than a problem that required action at all levels. Sadly, this professional believes we have reached the point where inactivity is killing some children or at least dramatically shortening their lives. The mortal consequences of overweight and obesity have also been recognized by parliamentarians. In March 2007 the House of Commons Standing Committee on Health released a report entitled *Healthy Weights for Healthy Kids* (House of Commons Standing Committee on Health, 2007). In this report the committee states that it "shares the fears of many experts who predict that today's children will be the first generation for some time to have poorer health outcomes and a shorter life expectancy than their parents" (p. 1). Thus, physical inactivity of children in itself is not of concern to those outside of the physical activity field. However, once they have recognized that physical inactivity leads to negative health outcomes, physical inactivity becomes incongruent with the values of all of those who have a concern about children's health.

There is wide-spread agreement from the health sector, the education sector, the active living sector and the general public that the primary causal factors for many chronic diseases are overweight and obesity and that insufficient physical activity contributes to both. Various bodies of literature and the news media have communicated this idea widely leading to general consensus on this point. As such, competing versions of the impact of the insufficient activity do not exist as much as do different perspectives on the problem from people working in different domains. For example, there is a distinction between the way people within the health sector and those working within the education sector describe the negative outcomes related to inadequate activity. The health sector is concerned with the health problems and chronic diseases caused by inactivity, while those within the education sector are concerned with detrimental effects inactivity has on the learning ability of children. Educators are concerned with the health of students but this concern is framed within the context of teaching the children in class. Some educators disagree with the naming of childhood obesity as an epidemic. They do not feel that from their experience that they would call it something as serious as an epidemic (P9, P1). On the other hand, health sector workers do not hesitate to label the problem an epidemic.

Factors defining the problem of insufficient physical activity vary depending on who you ask. Health professionals are concerned with weight management and obesity in younger populations as these lead to chronic disease later in life. Recreation people see the value of physical activity in the social development of children and youth. Physical education specialists are concerned with children developing physical literacy (P3). Parents and professionals see the rates of inactivity in today's children being a result of the cultural changes in the last 30 years. They see the challenge now is to compensate for the changes to reduce the impacts on the physical and mental health of the children.

Statistics on unhealthy weights reported by Health Canada and Statistics Canada have been influential with Alberta's health circles including Alberta Health and Wellness. It has been recognized that physical inactivity will lead to increases in medical problems. There is also the belief that policy makers are concerned with increased spending on health care that will result from physical inactivity and this is the motivation for government promoting physical activity.

There are competing perspectives about whose responsibility it is to increase the physical activity of children. Is it the responsibility of schools, the health institutions, and the government's recreation department or is it the responsibility of parents? For example, parents from some cultural backgrounds may not believe that there is a place or a need for physical activity in the school setting (P11). These parents believe that the school is a setting primarily for academics and physical activity does not really have a place there (P11). Others feel it is the school's duty to provide a well-round learning experience, including providing adequate physical activity for the children (P3). Still others look to the health care sector to lead the increase in physical activity.

Both educators and health administrators recognize the potential the school system has to deal with child health issues. However, funding does not easily cross from one sector to the other. The regional health authorities receive funding, albeit limited, from the provincial government to carry out initiatives to protect the health of children. Schools do not receive any funding to deal with health. Lack of resources specifically aimed at addressing health issues within the schools places a strain on the educators. Funding is not provided by the health ministry to the education ministry to help the schools address health issues. Teachers and school administrators become frustrated when they identify health issues within their student population but don't have the resources to address them. This is the case with a variety of health issues including those resulting from insufficient activity.

Advocacy.

Advocacy surrounding an issue can impact its rise on the policy agenda. Rochefort and Cobb (1993) describe several factors relating to advocacy as impacting the importance placed on an issue. The intensity of the advocacy is one such factor. Advocacy for improvements to physical activity within the school setting has come from a number of organizations, and has had varying degrees of success. HPEC has been calling for daily physical education for all students in grades one through twelve since 1984. The length of time over which this request has been made, the fact that HPEC is allied with both the Alberta Teachers' Association and the national CAPHERD group and the specificity of the request are factors that favour the move to DPAI by Alberta Education. Another position paper adopted by HPEC in 1997 called for "caring professionals, parents, administrators, allied agencies and leaders to help our children and youth assimilate skills and values leading towards the acceptance of Active Living as a positive and healthy way of life". (Health and Physical Education Council of the Alberta Teachers' Association, 2000, p. 3). This advocacy coincides with the development and adoption of the new active-living-focused physical education curriculum. In addition, this position paper states that "each school must have at least one professionally prepared physical education specialist who can act as the leader and resource teacher assisting all teachers in the development of the total physical education program." No action from the ministry of education or from school boards has yet been seen regarding this point. This is likely because decisions about hiring staff have been delegated to the individual school and are influenced by values of the principal, what he/she hears from the school community and budget constraints. Alberta Education is unlikely to mandate this kind of detail, particularly for a non-core subject.

Responsibility for Issue.

The framing of an issue and its causes have a bearing on who will be seen as responsible for resolving the issue (Rochefort and Cobb, 1993). The cause of insufficient physical activity in children has been framed as multi-faceted and largely societal. Health professionals describe it in terms of the social determinants of health and decision-makers bought into this idea. The cause of the problem was steered away from the individual and his or her family alone. With the issue framed this way, government institutions were positioned as the organizations that needed to act. This raises the question of which sector within government should act. One would view a joint effort between health and education as the ideal way to proceed with health bringing their understanding of the physiological needs and education providing the setting. However, silos existing between the sectors have caused difficulty. During the 1990s, the government of Alberta was making cutbacks in all departments. The ministries had to remain very focused on their core mandates and had little leeway to take on roles that were not central to their purpose. As such, it was difficult for education to take on a role in promoting the health of students through increased physical activity during these years. It appears that this mindset remains today.

Perceptions about ownership of the problem and responsibility to solve it drive the types of solutions that are sought. While the mandate of the school system broadly refers to providing a healthy environment for students, the mandate is clearly centred on achieving learning outcomes (Government of Alberta, 2001). Schools, given their limited resources, see achieving learning outcomes as difficult. Educators perceive the schools as having a 'crowded curriculum' with little time available to provide health interventions. However, educators are swayed by the research findings indicating that the additional time required to offer regular physical activity is offset by the improved efficiency in learning that the children gain. Health professionals feel they understand what changes are needed, but recognize that schools have far more and regular contact with the population of students requiring intervention than they do. Health regions attempt to influence levels of physical activity within schools, but are hampered by insufficient resources (P17). At the local level health and school sectors have not been able to merge together and work on the activity levels of children in a coordinated fashion. Projects have existed in isolated areas but it is not widespread and they have not been long-term initiatives.

Emergence of a policy entrepreneur.

A unique opportunity to bring together education and health occurred when Lyle Oberg, Conservative MLA for Strathmore-Brooks was assigned the education portfolio. Oberg practiced as a family physician and served as a trustee on his local school board before entering provincial politics (Legislative Assembly of Alberta, 2007). His medical background gave him an understanding of the importance of sufficient physical activity in maintaining the health of children. As minister of education it was within his power to mandate physical activity on a daily basis for school children. He championed the idea of daily physical activity within government and announced the initiative in August 2003. It appears that Oberg himself, without prior input from the department bureaucracy, decided to announce the DPAI. Consultations with schools about the implementation of the initiative and supporting documents for use by schools were not created by the bureaucracy until after the announcement giving the impression that the idea of DPAI came from Oberg himself, not as a result of advocacy efforts from others within or outside of the department.

Because of this Oberg is described by some as a policy entrepreneur. But Oberg may be lacking some of the key characteristics of a policy entrepreneur. Kingdon (1995) says an entrepreneur is as an advocate who is willing to invest their resources such as time, energy, reputation, and more to promote a position in order to introduce policy innovations. Oberg was responsible for bringing DPAI to Alberta's schools but the degree of work he did in advance of announcing the program may not have been sufficient to describe him as a true policy entrepreneur. Rather, Oberg may have been a policy opportunist, as described by Weissert, (1991), latching onto the issue as he saw the policy window opening. Looking at the portfolios Oberg has held and the timing of two major policy events may indicate that Gary Mar was actually the policy entrepreneur and Oberg was in the right place at the right time to announce the developments. Mar was Minister of Community Development from June 1993 to May 1996. It was during this period that the Alberta Active Living Strategy was developed outlining the responsibilities of the other departments for implementing it. A call for a new physical education curriculum focusing on active living was called for in the strategy. After the adoption of the strategy, Mar was reassigned to Alberta Education and was now in the position to follow through on the new physical education curriculum. During the period Mar was Minister of Education, the curriculum was developed. However, before it was announced, Mar was reassigned to Health and Wellness. The launch of the new curriculum in November 1999 was made by Oberg, who had become minister of Learning in May of that year.

Another portion of the Alberta Active Living Strategy was the call for increased time for physical activity in schools. This, too, was an idea that emerged under Mar, and again, it was Oberg who announced the program (Alberta Education, 1999). On both issues, Mar was working with the Federal-Provincial/Territorial committees and the Canadian ministers of recreation and sport to popularize the ideas of active living and DPAI (Alberta Community Development, 1998). There is no evidence that Oberg worked to do so. As such, Mar was the policy entrepreneur for both the new physical education curriculum and the DPAI, while Oberg was the policy opportunist, announcing initiatives that Mar had worked on to bring together the policy streams of problem recognition and a solution. Oberg was there to push the initiatives through the policy windows as he saw them opening.

Policy Formulation of the DPAI

Schools seek information about existing programs that they can customize to meet the needs within their community. Sources of options for interventions of which schools avail themselves include other schools, board staff, school staff and parents, HPEC and their organizations and independent organizations that promote various types of physical activity options. School boards have consultants charged with supporting schools in terms of physical activity and health. These consultants gather information by following the professional literature, maintaining alliances with other professionals, and attending conferences.

Participants at the school and board consultant levels were unable to give insight into how actual programs and initiatives were chosen and which options were rejected and why. Apparently options that are not chosen are quickly forgotten. These types of decisions are made fairly informally within working groups where no records of the process are kept. No one described using a formal system of information gathering and evaluation of options to reach the optimal choice. The solution that was chosen was one that was found or modified to fit the situation and that did not present any insurmountable barriers to its implementation.

The policy formulation process resulting in the DPAI did not develop in an orderly and stage-by-stage fashion. From the perspective of some interviewees, the DPAI ‘came out of the blue’. It can be argued, however, that the development happened over such a long period that its movement was almost imperceptible so that when the announcement was made it came as a shock. A number of policy events occurred, each supporting DPAI but none large enough to become broadly known to the general public. This is in line with Kingdon’s (1995) description of an idea ‘bubbling around’ and being considered and refined over a period of time. These events are summarized in Table 1.

It has been more than twenty years since September 1984 when HPEC tabled its position paper calling for daily physical education in Alberta schools. The paper states that time allocated for physical education in elementary schools should be a minimum of one-half hour per day.

In February 1995, the Federal-Provincial/Territorial Ministers Responsible for Recreation and Sport recognized that physical inactivity represented a major health risk, and that governments needed to make the development of strategies to make Canadians more active a priority. As a result, in 1998 Alberta Community Development released the Alberta Active Living Strategy (Alberta Community Development, 1998). Of the 23 recommendations in the strategy, six were directed at the school system. Recommendations called for the development by Alberta Education/Learning of a new physical education curriculum with the focus on active life skills, access to physical education specialists with training in active life skills for every school, and that every school create an environment that provides encouragement and opportunities for students to be physically active during each school day. Alberta Learning did launch a new physical education curriculum in 2000 with a focus on active living.

In September 2001, the Coalition for Active Living stated that physical activity in Canada had steadily eroded over the previous decade, in part, because physical education in schools had been cut drastically. Physical activity during non-school hours had also been reduced and school facilities for physical activity had been poorly maintained (Coalition for Active Living, 2001a). Later in 2001, the Alberta government's review of health care resulted in A Framework for Reform (The Mazankowski Report) (Premier's Advisory Council on Health for Alberta & Mazankowski, 2001). It called for students to have the opportunity for regular exercise as part of every school day.

The federal Commission on the Future of Health Care in Canada presented the Romanow Report in November of 2002 (Commission on the Future of Health Care in Canada & Romanow, 2002). Recommendation 23 of the report calls for the adoption of a strategic blueprint presented to the Commission by the Federal-Provincial/Territorial Ministers Responsible for Sport, Recreation and Fitness. First and foremost in this blueprint is the increasing of time devoted to physical education and sport in schools.

The *Report and Recommendations from Alberta's Commission on Learning* was being drafted when Oberg announced DPAI in August of 2003 (Alberta's Commission on Learning & Alberta Learning, 2003). In the report the Commission recommends the introduction of a new wellness program for all students from kindergarten to grade 12 that includes "some form of daily activity to encourage students to adopt an active lifestyle." It also calls for the importance of physical activity to health and wellbeing to be taught by teachers who are well trained and committed to the importance of physical activity, health and healthy lifestyles. This recommendation was supported by Alberta Education along with 83 other of the 95 recommendations presented in the report.

While daily physical activity was not the main focus of any of these reports, it was still contained within each of them giving continued support to the idea of institutionalizing physical activity within each school day. Even though the idea was first documented by the teachers' organization in Alberta, HPEC, actual implementation did not occur until it had received support by health, education and recreation sectors at higher levels of government.

There are a number of institutional factors that specifically favour DPAI over other solutions to insufficient physical activity. Prior to the implementation of DPAI, the school system already had a physical education curriculum, the physical plant to offer physical activity, teachers to conduct the classes and at least basic gymnasium equipment.

Table 2.

Timeline of the Policy Formulation of the Daily Physical Activity Initiative

Date	Event
1984	HPEC tables position paper on daily physical education calling for 30 minutes of physical education per day in Alberta schools.
February 1995	Federal-Provincial/Territorial Ministers Responsible for recreation and Sport recognize physical inactivity as a major health risk. They call for governments to make development of strategies to increase activity a priority.
1998	Alberta Community Development releases the Alberta Active Living Strategy with 23 recommendations, 6 aimed at schools.
September 2000	Alberta Learning launches a new physical education curriculum that emphasizes the attainment of life-long active living.
September 2001	The Coalition for Active Living reports that physical activity in Canada had declined because physical activity in schools had been cut drastically and school facilities had been poorly maintained.
December 2001	The Mazankowski Report on health reform in Alberta calls or Alberta students to have the opportunity for regular exercise as part of every school day.
November 2002	The Romanow Report on the future of health care in Canada is released and includes a recommendation that calls for the increasing of time devoted to physical education and sport in schools.
August 2003	Minister of Learning, Lyle Oberg announces the Daily Physical Activity Initiative for Alberta students.
October 2003	Alberta's Commission on Learning recommends a new wellness program for all students that includes daily activity to encourage children to adopt a healthy lifestyle.
September 2005	The Daily Physical Activity Initiative is launched in Alberta schools for kindergarten to grade nine giving students 30 minutes of physical activity each school day.

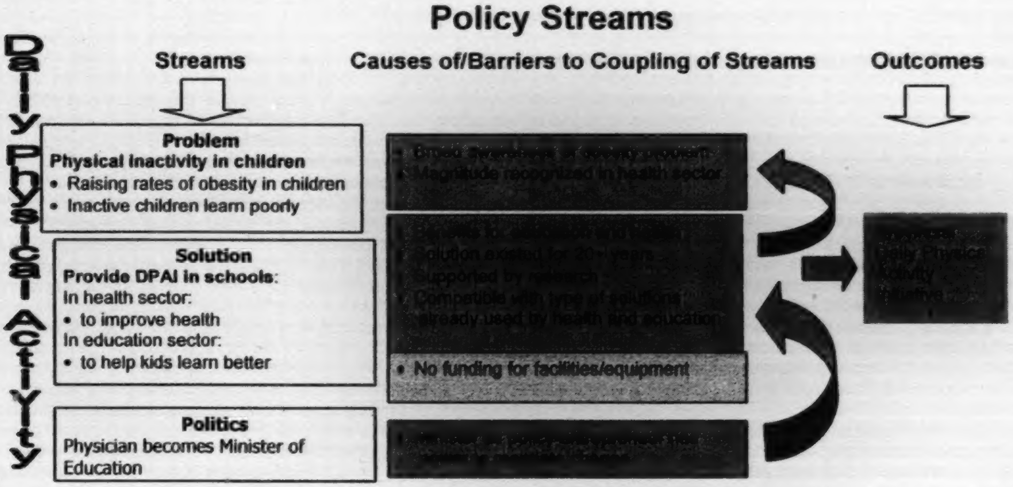
Policies of Alberta Education and the school jurisdictions have for many years allowed for physical activity to be offered on a daily basis. Some school communities had embraced the value of daily physical activity and worked to incorporate daily activity into their timetable prior to mandatory DPAI. Limitations such as gymnasium time, budgetary constraints, or lack of physical education specialists to deliver the program have, until the mandating of DPAI, limited these programs to only the most committed schools (P12.1). Yet they did exist and set a precedent for DPAI. These institutional factors softened the system and prepared it to accept mandatory DPAI. Use of this solution was also familiar to the school system and therefore, more easily adopted.

How DPAI Came to Be, According to Kingdon

The scenario observed regarding the policy process followed by DPAI fits Kingdon's description of the coupling of the three streams (problem, solution and politics) better than the more linear process described by Howlett and Ramesh. The problem of insufficient physical activity in children was defined and framed over a number of years, changes occurred within the Alberta cabinet while at the same time daily physical education or activity was being touted as valuable. This process was unobserved even by participants that are closely involved in it. The policy choice seemed to pop out from nowhere. Only upon close reflection could participants uncover the means by which an option became the favoured choice.

The mandating of the Daily Physical Activity Initiative into Alberta elementary schools occurred because the three streams became coupled as diagramed in Figure 4. The opportunity for the long-standing solution of DPAI to be coupled with a problem arose as the general population recognized the magnitude of obesity in children. At the same time, a physician with personal beliefs about the benefits of physical activity took office as the minister of education and coupled the solution with the political stream through his ministerial power. He was able to frame the issue of a need for increased physical activity in the school setting so that the solution highlighted benefits for the educators responsible for implementing the physical activity. The argument for DPAI is backed by research showing improved educational outcomes, a key interest of teachers. This argument outweighed the fact that limited funding was allocated to the implementation and that the curriculum was already very crowded.

Figure 4. Coupling of Policy Streams for DPAI


Policy Streams
Daily Physical Activity
Streams
Causes of/Barriers to Coupling of Streams
Outcomes
Problem
Physical inactivity in children
• Raising rates of obesity in children
• Inactive children learn poorly
Solution
Provide DPAI in schools:
In health sector:
• to improve health
In education sector:
• to help kids learn better
Politics
Physician becomes Minister of Education
• Magnitude recognized in health sector
• Solution existed for 20+ years
• Supported by research
• Compatible with type of solutions already used by health and education
• No funding for facilities/equipment
Daily Physical Activity Initiative

In Kingdon's terms, the solution, DPAI, had been 'bubbling around' among educators and their organizations since CAHPERD (at that time called CAHPER) called for daily physical education in 1974. The idea was incorporated at the provincial level with the1981 endorsement of daily physical education by HPEC (Thompson, 1984). Several factors kept the solution of DPAI from coupling with the problem of insufficient physical activity in children. At this time not enough data linking physical activity with positive learning outcomes exists. No sector was viewed as having ownership of the problem; it was seen as having broad, societal causes.

HPEC followed up their 1981 resolution with a position paper on the amount of time allocated to physical activity in schools (Thompson, 1984). Within the position paper, the problem that could be alleviated by daily physical education was described as a number of general health and wellness concerns. HPEC stated that making physical education an integral part of every students' education each year would provide students with the opportunity to become physically fit, to develop motor skills for optimal motor development, and to develop a positive attitude toward a wide range of physical activities. At this time, however, the evidence that daily physical activity would lead to better learning had just begun to accumulate, was still quite limited and was not well known. The problem of insufficient physical activity in children reducing their capacity to learn was not on the agenda of the policy-makers. Brief mention was made that more regular physical education could diminish the threat of obesity. The paper states that "regular and vigorous activity is needed to avoid problems of obesity" (p.3). The terminology used in this statement indicates that in 1984 the potential for obesity in children was foreseen, but obesity was not yet perceived as a major problem. "Avoiding the problems of obesity" versus reversing the consequences of obesity indicates this.(p. 3) At this time only a minority of health professionals were beginning to recognize childhood obesity as a problem and it had yet to reach the attention of decision-makers. Through the 1990s cutbacks in government spending caused the education sector to focus more strongly on academic achievement. Any other activities in schools were deemed to be frivolous. This put thoughts of daily physical education or activity on hold for most of the remainder of the decade. The political conditions were not right for an overt change in school policy to take on the problem of obesity, but Alberta cabinet minister Gary Mar prepared the stage from behind the scenes. First, as minister responsible for sport and recreation his department created and circulated the Alberta Active Living Strategy that called for more physical activity in schools. Then as minister of education he oversaw the development of a new, active living-focused physical education curriculum. Together these actions shifted the ministry of education into a position to take on the obesity problem. Yet during the 1990s obesity continued to rise and more and more health professionals became aware of the need for more physical activity.

It was in 1999 that Lyle Oberg, a family physician from southern Alberta, became Minister of Learning. This was to be the key political event sparking the adoption of DPAI. Oberg was among the health professionals that recognized the rise of obesity and the negative consequences it was bringing to Alberta's children. As a Minister of the Crown he was influential within cabinet and the caucus, but more importantly as Minister of Learning Oberg was in a unique position of power to act on the issue of childhood obesity. The Minister of Education/Learning determines the curriculum that will be taught within Alberta's schools. He can determine the amount of time allocated to each subject. In 2003 Oberg had the power and used it to implement the first, province-wide, daily physical activity initiative in Canada.

Oberg's training as a physician allowed him to recognize and understand the problem of insufficient activity, and his position within the government gave him the power to implement a solution, but it was his political dexterity that allowed him to maneuver DPAI into schools with minimal resistance. First, he avoided any blockages within caucus by keeping the initiative at a very low cost for government. Only one staff position was hired for the implementation of DPAI, a small amount of funding was offered to the schools boards, and no funding was offered to the schools to implement the program. Next, he was quite open and flexible regarding the way in which DPAI could be implemented. Other than the restriction that it be offered for 30 minutes per day, schools were free to choose the activities, locations and times the program could be implemented. This reduced resistance from the schools because the schools could make most of the decisions regarding implementation. The amount of time for DPAI, 150 minutes per week, was not substantially different than that already allocated to physical education in most schools. More important in gaining the support of teachers within the schools was the way in which he framed the problem and its solution. As discussed earlier, the primary interest of teachers is to achieve academic learning. Oberg was savvy in his use of the body of literature that now existed to support the connection between daily physical activity and academic achievement of students. He had research to prove that taking 30 minutes each day away from academic study and devoting it to physical activity could actually increase academic outcomes. The teachers could not argue against this since many of them and their own organizations had been advocating this for many years. Little mention was made to the teachers of Oberg's primary goal – improved health of children through reduced rates of obesity. Teachers care about the health of their students but are much more motivated to improve academics than health.

Kingdon also states that each system has only a limited capacity to deal with issues. This limitation can cause solutions to problems to remain unimplemented even once they have risen on the agenda and been recognized. New or innovative solutions are more taxing on the capacity of a system, so, by keeping DPAI as similar as possible to existing curriculum, Oberg avoided straining the educations system's capacity. Because they have offered physical education for decades, all schools have the physical plant, equipment and pedagogical knowledge base to implement DPAI. The largest budget expense for schools is teachers. By using teachers already on staff at the schools, whether they were physical education specialists or generalist, schools did not need to incur large costs for DPAI. Once again, Oberg avoided dissent.

Kingdon describes two types of policy windows: problem and political. Both types of policy windows played a role in the adoption of DPAI. First, the political window opened in the shuffling of the cabinet in May 1999. This window allowed Oberg to take power in Alberta Learning. Second, the problem window was opening in 2003 as more and more discussion was occurring in the media about obesity and particularly, obesity in children. The general population had a growing understanding that insufficient physical activity was contributing to obesity in children. Thus, DPAI was easily accepted by parents as a needed intervention for the health of children. For those parents who believed that schools are for academics only, the teachers could rebut with the research showing physical activity increases learning. DPAI fit with parents' value of the health and learning of their children.

Oberg introduced a change to curriculum that could have huge impacts on the physical activity levels of Alberta's children and by doing so could drastically improve the health of these children in years to come. Oberg's main contribution to the coupling of the streams was his personal attributes that gave him the ability to bridge the gap between health and education. He brought together ideas which had until then existed in two separate silos of the government.

Following the provincial election in November 2004, Gene Zwozdesky was named Minister of Education. Consultations with the education system and development of resources for DPAI were underway at this time. While most educators were in favour of increased physical activity for the students, some schools and boards were expressing concerns about the feasibility of implementing DPAI. Shortages of appropriate facilities and a crowded curriculum were cited as problems by some school administrators and boards. In an effort to accommodate the variety of situations that schools were facing, in February 2005 Zwozdesky reduced the restrictions on DPAI. Schools were told they would not have to dedicate a 30 minute block to DPAI but could break it into two fifteen-minute or three ten-minute periods of activity. Many physical activity professionals felt this would dilute the program to the point it was no longer beneficial and would decrease the accountability of teachers and schools to provide a full 30 minutes daily. Secondly, rather than restricting the activity to teaching times, schools would be free to us recesses, lunch breaks and before and after school times to offer DPAI. This leads one to wonder how the program would be considered mandatory if it were not being offered during school hours. Also, activity during these other times is required by children to meet the recommended 90 minutes per day. It will be important for an evaluation of the DPAI to investigate the effect of these changes to the original initiative as outlined by Lyle Oberg. For example, an evaluation of DPAI may show that the time spent on physical activity has not increased significantly; rather it has been broken into smaller segments and spread across the week.

Why the Streams Have Not Coupled for WTS

WTS remains a solution that is not coupled to a problem at the population level for multiple reasons. For children and families a number of barriers, both real and perceived, exist. Distance to the school, traffic danger, adverse weather conditions, crime danger, opposing school policy, community design, and exposure to bullying were all named as reasons for not walking to school in a survey done in the United States (Centers for Disease Control, 2002). With the exception of weather conditions, one could argue all of these barriers could be dealt with in the longer term. In the shorter term, however, characteristics of the community are unlikely to change. Thus, the solution chosen to address the problem of insufficient physical activity in children must address or avoid these barriers. DPAI successfully avoids all of these barriers. This is a key reason for its successful adoption.

However, the focus of this research is the public policy processes and there are many reasons within the policy process realm that have worked against WTS initiatives. The key reasons the streams have not coupled are diagramed in Figure 5. Unlike the conditions that coupled the streams and allowed DPAI to become the accepted policy, the conditions do not exist for the streams to be coupled in favour of walk-to-school programs and they have not become a widespread part of school or health policy.

Diffusion of WTS programs around the world happened quickly but nowhere has it reached a high density. In Canada WTS has most often been organized by volunteer parent groups. In other countries, i.e., the United Kingdom and New Zealand, municipalities or schools have offered support for some WTS initiatives. Municipalities in these countries have been motivated by safer streets resulting from the reduction of car traffic. New Zealand schools see a greater role for themselves in supporting WTS than do Canadian schools. This fits with the priority New Zealanders put on physical activity for children evident in the number and high quality of playing fields and sports facilities available for children and youth. Yet even with support from public institutions, WTS is still the exception rather than the rule.

In the specific case of Alberta, WTS has not become an idea in good currency with the major institutional actors forming the sub-government in the policy network for several reasons. Those interests promoting WTS as a solution to insufficient physical activity in children are weak and disorganized compared to the interests promoting DPAI. S.H.A.P.E., the primary organization promoting WTS in Alberta, is small and grant funded. S.H.A.P.E. works within individual school communities seeking out interested individuals to champion active transportation initiatives for the students. It is sustained with minimal funding and project-specific grants. It devotes all of it resources to delivering programs to interested schools. Its supporting organizations, Go for Green and Active and Safe Routes to School, are based in Ontario so they have a limited profile in Alberta. Each of the three organizations has a slightly different ideology and approach to its work. While there has been no discord in their dealings, struggles to gain financial support have weakened their relationships. Because S.H.A.P.E. depends on grant funding it must be very flexible in how it frames its issue of concern. While the organization began with the intention of promoting walking to school to avoid the dangers of traffic congestion around the schools, it has broadened its focus to include physical activity through active transportation. By doing so S.H.A.P.E. has been able to access funding from granting organizations promoting physical activity, environmental concerns, transportation agencies, health organizations as well as promoters of traffic safety. The downside of this is that S.H.A.P.E. has diffused its message and weakened its ability to have a strong, focused vision. Moving from one focus to another has reduced the group's capacity to focus its effort on one desired policy outcome. Also, granting agencies desire a deliverable product, and policy change is not usually the type of product they seek.

WTS programs find support in principle from health, schools and the environmental movement in Alberta; however, the support of WTS is not high on the agendas within any of these sectors. Advocates of WTS initiatives face silos separating the sectors and preventing them from gaining a critical mass of support to raise the issue on the government's policy agendas. As a result, advocacy for WTS remains at the grassroots level of individual schools. S.H.A.P.E. does not work in the political arenas to promote WTS initiatives to elected decision-makers. As a pressure group it is too small and without resources or a membership base to reach out to decision-makers. Even if S.H.A.P.E. had the resources to act politically, it would still be a difficult task to promote the typical Walking School Bus program as a policy alternative. Alberta is part of the car-based North American society. Walking is not valued as a means of transportation, even for children and within one's own neighbourhood. Because leaders are not open to community programs, they do not help and may even hinder groups trying to start walking school bus programs. Stating liability issues, one school jurisdiction announced that WSB programs could not be sanctioned or organized by its schools.

Underlying the barriers facing WTS programs is the fact that walking is not valued in our culture. Walking is perceived as a low-class activity in a car-dominated world. People do not perceive that walking, particularly walking as transportation, is a useful activity to attain or maintain health in children. The loss of walking to school over the last few decades is not widely recognized nor seen as the reason children are insufficiently active. These perceptions are blocking the acceptance of active transportation as a viable solution to increase physical activity in children.

The organizations promoting DPAI have a higher degree of institutionalization than the WTS interests. HPEC is a council formed by the Alberta Teachers' Association, the union representing teachers in Alberta. As part of the union representing teachers in Alberta, HPEC is a highly-organized, institutionalized pressure group with a stable membership, well-defined objectives and a clear understanding of the workings of government. Through this connection, HPEC has more resources than S.H.A.P.E. to solidify its position and is better connected with key influencers and policy-makers. HPEC is also involved in professional development of teachers in the areas of health and physical activity. This role gives HPEC regular ongoing contact with teachers in all schools in the province. They have their own communications channels and they host an annual conference. These aspects of the HPEC organization provide the opportunity to concert efforts to mobilize members and to dialogue on policy issues to reach consensus.

While HPEC has a much stronger organization than S.H.A.P.E., it is still no match for the government ministries of education or health. For the education system, academic achievement is paramount. Even a well-resourced organization espousing the virtues of physical activity does not receive much attention in the learning-oriented education system. Even within the ATA, issues raised by HPEC are overshadowed by the labour relations function of the association. Policy strategies regarding physical education and health are less important to the ATA membership than policies regarding teacher remuneration and class size limitations. Effectively, S.H.A.P.E. and HPEC are not dissimilar and this is likely why the organizations have worked cooperatively on a number of projects.

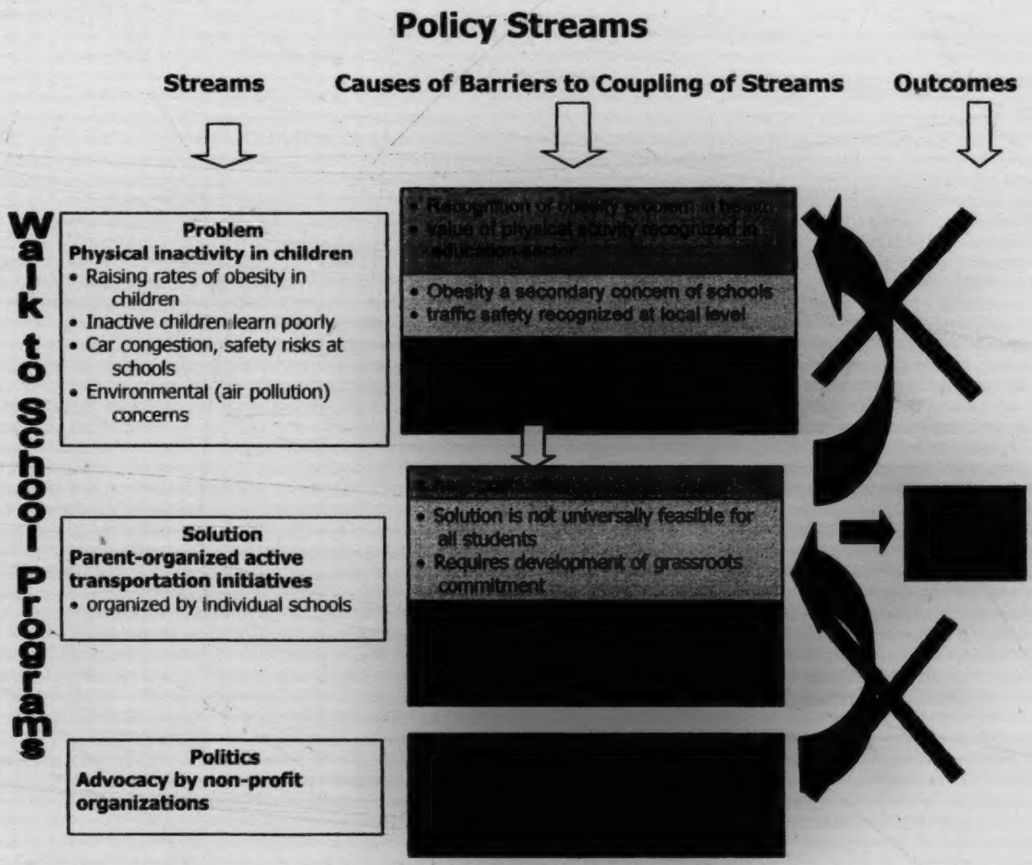
Regarding the issue of physical activity within Alberta's schools, the government is dependent on the cooperation of the school boards and teachers to implement their physical activity policies. Alberta Education used a consultative process when they revised the physical education curriculum in 2000. The resulting curriculum is not overly prescriptive, leaving a great deal of latitude for school boards and teachers in its implementation. This tone is also present in the implementation guidelines of the DPAI. Generally, it seems that Alberta Education is not willing to risk aggravating teachers and their union over a non-core area like physical education. They have offered their vision for active living in physical education but have not made the boards or their staff accountable as they have for the core subjects. The teachers' association is powerful and the government must rely on the teachers, their union, and the school boards to deliver education. According to Lindquist (1992), this dependency of the state defines the network surrounding insufficient physical activity in children in particular as clientele pluralist. However, this does not mean that the government is dependent on all of the network members. A mentioned above, the organizations promoting WTS are neither well organized nor powerful within Alberta. These factors place the government in a stronger position allowing them to act autonomously of WTS-promoting organizations. As a result, the government feels no pressure to support or adopt WTS in any significant manner leaving the organizations to struggle on their own.

Both government departments and the major institutional interests group (school boards, schools, teachers) forming the sub-government were seeking a solution that would fit existing operational constraints (budget and curriculum), while addressing the overall learning accountability structure with its focus on academic achievement rather than overall health. DPAI was tailored to address these constraints within the existing accountability structure.

Promoters of WTS have framed the solution to appeal to a variety of audiences with an interest in a host of issues including: traffic safety, physical activity, environmental, and active transportation. Because of the lack of institutional capacity, promoters of WTS have done this in an effort to secure funding from as many sources as possible. In their efforts to remain financially viable, the advocates of WTS have diluted their message to the point were it is no longer salient with key decision-makers. The definition of their problem includes rising rates of obesity in children are causing health problems, inactive children learn poorly, car congestion causes safety risks around schools and vehicles produce air pollution degrading the environment in the vicinity of schools. Pal (2001) reminds us that issues that are clearly framed rise more quickly on the policy agenda. In this case, the problem is not stated in succinct and plausible terms and, therefore, is not easily linked to the solution of WTS initiatives.

Despite having been around for about twenty years, WTS initiatives have not been coupled with the problem of insufficient physical activity because decision-makers see a number of problems of technical feasibility with the solution. These feasibility problems still exist because the activity within the academic community on the issue has been limited. There are only a small number of researchers world-wide who have looked at the connections between walking to school and the health of students. As such, there

Figure 5. Reasons Streams have not Coupled for WTS Initiatives


Policy Streams
Streams
Causes of Barriers to Coupling of Streams
Outcomes
Walk to School Programs
Problem
Physical inactivity in children
• Raising rates of obesity in children
• Inactive children learn poorly
• Car congestion, safety risks at schools
• Environmental (air pollution) concerns
Solution
Parent-organized active transportation initiatives
• organized by individual schools
Politics
Advocacy by non-profit organizations
• Recognition of obesity problem in health
• Value of physical activity recognized in education sector
• Obesity a secondary concern of schools
• traffic safety recognized at local level
• Solution is not universally feasible for all students
• Requires development of grassroots commitment

has been limited input and refinement of the solution of WTS. This has slowed the modification of WTS into a solution that is viable and attractive to decision-makers and that addresses the daunting societal, institutional and interest barriers.

Support for WTS is difficult to get because it is not clear whether travel to and from school is the responsibility of parents or schools. Rochefort and Cobb (1993) point out that clear ownership of a problem by a group that has a recognized legitimacy to deal with the problem will lead to the issue rising more quickly on the political agenda. However, since this is not the case, neither group may take the lead. The education system is unlikely to take on the organization of transportation to and from school if they consider it to be the parents' responsibility. Similarly, parents will not be willing if they feel it is the schools responsibility. Travel to school falls outside of school hours giving schools a reason not to take it on as an issue unless regulated to do so. This is the case with busing. School boards are responsible for organizing bus transportation for students within certain geographical areas, but parents are responsible if they live in others. The Student Transportation Regulation attached to the School Act states that the board will provide transportation to and from the school for students it has enrolled that live within the schools boundaries but more than 2.4 km from the school (Student Transportation Regulation, 2005). Parents living closer than 2.4 km to the school or outside the school area boundaries are responsible for the travel of their children to school. This fragmentation of the student population happens at most community schools making it difficult to find a solution that works for all students. This ambiguity has left walking to school in a policy no man's land.

Further compounding this issue is the fact that some schools pick up children living closer than required. While the regulation specifies that the schools shall provide bus transportation if a student lives within the school boundary and more than 2.4 km from the school, it does not preclude school boards from providing transportation for students living much closer to the school. This is the case with some schools in Alberta's urban areas. A situation exists in one urban school where, because of the configuration of roadways around the school, students living as little as 400 metres from the school yard can be picked up by bus. This sends the message that children should be chauffeured to and from school.

Buses, when compared to walking programs, are a turnkey solution that can be contracted out to operators. This is attractive to school boards. A contractor for WTS does not exist, leaving schools to build them on their own. Busing also fits into the well-understood area of motor vehicle insurance. School jurisdictions are protected from liability by the motor vehicle insurance in place during bus transportation. This is not the case with WTS initiatives. At least one school jurisdiction in Alberta has written a policy disallowing WTS because of potential liability.

Decision-makers look for a solution that can apply to all members of the population identified for the intervention (Howlett and Ramesh, 1995). WTS is not such a solution because of the number of children who do not live within walking distance of their chosen school. Decision-makers at the school boards have created the environment where children and their families can and do choose schools outside of their neighbourhoods. Some neighbourhoods lack a local school, forcing the children to travel by vehicle. The trend to open boundaries in our school jurisdictions have shifted student transportation to school from walking and bicycling to cars and buses (City of Edmonton, 2006). Children travel to more distant schools because their parents have chosen a program that is offered outside of their community and at too great a distance to travel on foot. Physical disabilities preclude others from walking. When enrolling children in a particular school, parents are seeking what they feel is best for the child's education. Unfortunately, it seems that they have not recognized that removing the opportunity to walk to school can be a potential health hazard. This is linked with the fact that parents do not value walking to school as a healthy form of physical activity for their children. They do not see the removal of walking to school as a detriment to their children's health. Walking to school is out of synch with our cultural norms. As discussed by Fruend and Martin, car culture is pervasive. In our society convenience is valued and walking is considered an activity for the lower classes. These values and beliefs are unlikely to change without educating parents about the health and learning benefits of walking to school. A lack of research-based evidence about the benefits walking to school can provide for health and learning will slow this educational process.

The provincial government is not likely to consider WTS programs as an option for increasing the physical activity of children because WTS programs are not the type of solutions that the decision-makers at the provincial level are familiar with or are used to using. Howlett and Ramesh (1995) find that decision-makers are far more comfortable choosing solutions with which they are familiar or that have elements which are well-known. The WTS model most often promoted is dependent on communities to organize and operate the program. The provincial government has no institutional connections with this level to implement such a solution. The provincial government tends to use granting programs to support community-based activities. These grants are usually matching grants that require the applicant to find 50% of the funding from other sources. This is a significant barrier to WTS programs since it is harder to get community donations for a program rather than something tangible like a playground.

It is conceivable that the provincial government could develop a system to implement WTS programs at schools that is more similar to the program delivery it is familiar with but this is unlikely to happen. Initiation of WTS by the provincial government or school boards would cost far more than DPAI. It would require venturing into a completely new area of programming requiring staff and resources. Furthermore, now that DPAI has been initiated, the school system likely feels it is making an adequate contribution to the physical activity of children.

Coupling the WTS solution with problems other than insufficient physical activity of children has not been successful either. Schools have some concern about traffic safety around the school but are more comfortable with solutions to control the traffic rather than to reduce it. Environmental concerns are not aligned at all with school priorities. There is no clear link between vehicle-related air pollution and academic achievements of children. Schools feel too heavily burdened to take on an issue for strictly environmental reasons when there will be no benefit for them either in terms of academic results or financial rewards.

Finally, and most noticeably when compared to DPAI, WTS lacks a policy entrepreneur capable of coupling the political stream with the problem-solution combination. No well-placed individual has come forth to champion WTS. While there have been keen individuals working at various levels to promote WTS, clearly none have had anywhere near the power or influence that Lyle Oberg had in moving forward DPAI. The non-profits that do advocate for it are weak politically and the political activity surrounding the problem as it is currently framed is limited. All of this amounts to three streams that continue to run separately with no forces in place to couple then. WTS initiatives remain small and isolated programs.

While the solution could be popular because of its low costs and no impact on curricular time, it also has several shortcomings. Promoters of WTS programs have not framed the problem in a salient manner. In an attempt to appeal broadly, the problem has been given a fragmented description which is not salient enough to garner support in schools, except in a few isolated spots. Walking is not a solution for all students because of distances to schools. The capacity of most school communities is not great enough to handle the organization of WTS programs. Because the responsibility for travel to school is ambiguous the school system does not offer assistance for WTS initiatives. Furthermore, advocates of WTS programs are mainly attached to politically weak non-profit organizations and no politically well-placed policy entrepreneur has championed the idea.

CHAPTER VI.

Discussion

This research has sought to discover what has occurred within the public policy arena to prevent walk-to-school initiatives or other active transportation options from being selected by policy decision makers as the preferred means of increasing physical activity among school aged children in Edmonton and Calgary. In answering this question, insight was given to the types of policies that impact physical activity in Alberta and other health promoting initiatives and some ideas about how advocates can work toward desired policy outcomes. Table 2 provides a summary of key learnings and this section will discuss these learnings as well as the strengths and limitations of the research.

Key Learnings about Policies Affecting Physical Activity

The Daily Physical Activity Initiative became policy in Alberta because the conditions were right for Kingdon's (1995) three policy streams of problem, solution and politics to couple. The problem of insufficient physical activity in children had gained broad awareness as the resulting problem of obesity rose to prominence. The health sector and the health and physical education portion of the education sector had seen the problem coming for a number of years, but once more people in the education sector and the general public became aware of the conditions, insufficient physical activity and obesity became defined as problems requiring action at the population level.

Daily physical activity in schools was an idea that had been around in the physical education circles for over 30 years. Skeptics may have initially seen the call for DPAI from physical education teachers as self-serving because daily physical activity would require more teaching positions for physical education teachers. However, the daily activity solution spent a great deal of time circulating within the relevant communities. Kingdon identifies this period of refinement by the community members as important for the solution to mature to the point where it is well matched to the problem. For DPAI this period provided time for research to be conducted that led to an evidence base supporting the solution. Better yet, the evidence showed benefits not just for the children, but also for the interests of those responsible for implementation of the initiative – classroom teachers. Improved academic results are of the utmost importance to teachers and DPAI offered it. It became a very salient option.

Within the political stream, the naming of Lyle Oberg as Minister of Learning was the key event that triggered DPAI. Whether one considers him to have been a policy entrepreneur or opportunist, his background as a physician allowed him to recognize the problem, and his cabinet position gave him the power to implement the policy. His abilities as a politician were needed to win over his cabinet and caucus colleagues as well as to avoid a backlash from the ministry bureaucracy or the teachers. Successful politicians are likely to come into power because they have skills in these areas. This is why they can be so valuable to recruit as policy entrepreneurs. According to Kingdon (1995) and Mintrom (2000), a policy entrepreneur works hard to develop expertise on the issue and then speaks out on the issue, perhaps as an organizational leader or as an elected official, as did Oberg. With a less noble image than that of the long-suffering policy entrepreneur but in some cases, equally effective, is Weissert's (1991) policy opportunist. When considering DPAI, it makes little difference if Oberg was one or the other; the result would have been the same. Latching onto a viable solution to a problem

Table 2

Key Learnings

3 Streams Coupled in favour of DPAI	The 3 Streams Coupled Because: • Awareness of the problem of insufficient physical activity grew • The solution of DPAI became supported by evidence that it improved learning of students • Minister Oberg used his political position in education and knowledge of health to couple the problem and the solution.
Problems that DPAI may face in the Future	• No evaluation of implementation or outcomes has yet been done • DPAI is not monitored within the school system so there is no accountability for its implementation • DPAI is not well resourced so tight budgets may cause its demise • Adding DPAI to the curriculum cannot address underlying social causes of the problem of insufficient activity – political will is needed for social change.
An Alternative Framing for WTS	• Link WTS to an idea in good currency – the reduction of greenhouse gas emissions • Improve the feasibility of WTS by modeling it on the bus system • Advocates should seek institutional changes in government to increase cross-departmental accountability between education and health.
Application of Learnings to other Health Promotion Issues	• Conduct research and data analysis to frame the issue in a salient manner, understand the values and beliefs of decision-makers • Introduce solutions to the communities of interest so that it can be refined over time by their input • Identify or recruit a champion or policy entrepreneur to maneouver through the political stream • Be prepared to act when a policy window opens – be alert for the opening of both predictable and unpredictable windows as well as problem and political windows.

at the right moment can have benefits for politicians. They are amenable to these ideas as it is in a politician's best interest to come up with positive, well thought out policies that will be seen as moving government to meet its objectives without causing any major disruptions. That is the case with Lyle Oberg and DPAI.

Problems that DPAI May Face in the Future

While Oberg was skillful in getting DPAI approved, some of the concessions made by his successor Zwozdesky may leave DPAI open to abuse in the future. The introduction of DPAI may have appeared as a victory for all those advocating daily physical activity. But after two school years of its implementation, no evaluation of its implementation or effectiveness has been undertaken. Evaluation is an important part of the Howlett and Ramesh's policy cycle because it provides for the gathering of information which is necessary to ensure that the policy solution still fits the problem and that it is not causing a different set of problems. Evaluation is the means of gathering the data to support the intervention when it is pitted against other demands in the budgeting process. Without evaluation, DPAI could face political peril.

As discussed, there are many institutional facilitators that support DPAI as the optimum means of increasing physical activity among school students. However, there are also many barriers to be overcome if DPAI is to be integrated into the school system for the long term and for the implementation of DPAI to be equal at all schools for all classes and students. Foremost among the institutional barriers facing DPAI is the measurement and evaluation of the initiative. Measurement and evaluation of schools by Alberta Education impacts the importance placed on physical education and DPAI relative to other subjects. Delivery of physical education and activity programs is monitored at the board level, but student outcomes in these areas are not evaluated. The lack of evaluation results in poor accountability and the potential for insufficient effort to be placed on these non-core subjects. This is an institutional barrier to having a consistently high quality of physical activity/education programs in elementary schools across the province.

Human and financial resources are distributed within the school based on the principle that the primary function of school is to teach core subjects and all other things are secondary (P8). Administrators feel that targeted resources for health initiatives must come from sources outside the regular school budget. They feel they need sustained external support to carry out initiatives not directly related to their learning mandate (P13). They do not appreciate one-time projects that will not be provided with funding to continue for the long-term. Educators are frustrated when they spend the time and effort to start up a health promoting initiative only to have it cancelled after the initial period because no sustainable funding exists. This can be a barrier to health promoting programs that do not come with funding attached. This is a potential barrier facing DPAI because ongoing funding has not been directed to the school level to support it. Tight budgets in the future could see schools putting pressure on the government to provide funding for DPAI or to eliminate it.

Adding to curriculum to solve a problem is not always the best solution claims one school administrator. He cites the human sexuality course as an example. While the addition of material to the curriculum can provide more information to students, it cannot change issues with causes that are societal in nature. As the addition of human sexuality courses in school did not stop the problems of teenage pregnancy or sexually transmitted diseases, he is skeptical about the impact DPAI will have on physical activity levels or the obesity rates of children (P8). He goes on to explain that he feels that a problem caused by societal issues such as the dependence on cars and the reduced outdoor play for children needs to be changed by the broader society, not just by schools. He feels that this is the time to make some significant societal decisions about health and wellness. However, while he feels that action is needed at the societal level, he is not certain the political will exists to do so at this time (P8).

Lack of measurement and evaluation, of ongoing funding, and of political will to make broad changes at a societal level are all barriers that DPAI is likely to face in trying to gain long-term success and integration into the school system. While this research has focused on the physical activity at the elementary level, the issue of implementation has yet to be solved at the junior high and high school levels. These are all challenges that could affect DPAI in the coming years.

An Alternative Framing for WTS

WTS faces a number of very large barriers blocking its adoption as a population level intervention to increase physical activity in schools. But comparing the case of WTS to the case of DPAI does show some avenues that could be pursued to reach this end. Pal (2001) discusses reframing a problem so that it becomes linked with an idea in good currency. This could be the first step to attaching WTS to a problem that has a degree of urgency because a recent change in the mindset of Canadians may play a part in making active transportation and WTS initiatives more popular ideas. There is a growing uneasiness with the design of our cities and the way that they have made us car-dependent. In a poll conducted in January 2007 it was found that the environment has become the top concern of Canadian voters. They are concerned about greenhouse gas (GHG) emissions and are calling on the federal government to act. Seventy-four percent of Canadians were displeased with the federal government's inaction regarding GHGs and even 62% of Albertans held the same negative view. These results showed a significant change from the previous survey conducted on this topic in September 2006 (Canadians want Harper gov't to tackle environment: poll, 2007). The desire of Canadians to reduce GHG emissions may turn walking to school into one of Schon's ideas in good currency that the promoters of WTS are looking for. This change in social attitudes could be a signal to promoters of WTS to reframe their problem in terms of environmental benefits. Canadians are being asked to make small changes to reduce their impact on the environment such as banning the use of incandescent light bulbs (Holubitsky, files from Archie MacLean, 2007). Reducing car trips to school could be another similar symbolic change that is fairly low cost for citizens. Framing the issue in terms of the reduction of GHG emissions would streamline the message and dropping the other aspects would reduce its dilution making WTS more salient. In the future, we are likely to see many other incentives for Canadians to leave their cars at home. WTS initiatives could mesh with this movement. Much like Oberg was able to sell the DPAI to teachers by promoting benefits that were salient to them, WTS promoters could increase the physical activity of children by latching on to the idea in good currency of environmental protection.

With the federal government supporting these kinds of initiatives, funding may become available. This could give S.H.A.P.E. the financial support it needs to grow and reach more schools and children. Each school community could calculate its impact on

GHG reduction. The positive environmental effect of WTS initiatives would be easily measurable and give the organizers immediate and tangible feedback. Websites are already available that can calculate the reduction of GHG emissions resulting from a reduction in kilometres traveled by car (i.e., Government of Canada, 2007). This would connect the solution directly to the problem without ambiguity. The WTS initiative would maintain its benefit of being low cost to implement but would also offer a small economic saving to parents. It would also add to the amount of physical activity some school children receive without linking it to obesity. In this way, it would appeal to parents who have no concerns about their children's weights. This factor could be important in the future because as one interviewee stated "obesity is the flavour of the day" and a new issue will replace it in the future (P4).

To improve the feasibility of the solution it could be offered more like bus service. Because schools and school boards are familiar with the bus service, according to Howlett and Ramesh's (1995) work, they would be comfortable with this type of solution more so than a volunteer organization. We have seen the use of busing to school increase. There are many instances where children are bused from well within the 2.4 km limit set by Alberta Education in its busing regulation. These situations are usually occurring because of busy streets that the children would need to cross to reach the school. As was indicated earlier, there is a situation where the children are bused when their homes are less than 400 metres walking distance from the school yard. One solution that could reduce the traffic dangers associated with crossing a busy street would be to hire a crossing guard to assist students at the intersection during travel to and from school. This solution was adequate in years past when the traffic at the intersection was the only concern of parents. Now, however, crime danger and bullying are other barriers parents feel when sending their children to school on foot. Having an escort with the children for all or most of the trip would be preferable to parents today. Another way to provide this service other than through the volunteer run Walking School Bus model would be to replace the bus and driver with paid escorts following defined routes. This would provide safe, supervised and active transportation for the students living within reasonable walking distance of the school.

This research identifies a major systemic change that is needed to make the development of healthy public policy for school-aged children easier. Silos that exist separating the various sectors in Alberta are major problems for health promotion. In this case, the separation between health and education slowed the implementation of a promising population level intervention for many years, if not decades. The initiative between Alberta Health and Wellness and Alberta Education that has hired the manager of school health and wellness is the first step toward integrating the mandate of health with the access to the population afforded by education. This is, however, just one position at the operational level. This type of interdepartmental cooperation needs to begin at the higher more political levels of government if there is to be an overall change in the workings of the departments.

Lavis et al. (2001) have found a similar situation in healthy public policy relating to employment. They found barriers could exist in institutional features such as the extent of jurisdictional authority between departments and levels of government, the pattern of existing government partnerships, and the extent of accountability for addressing cross-departmental or cross-governmental issues. In both the employment policy situation and the education policy situation, establishing cross-departmental accountability for health is required. Based on the recommendations that Lavis (2001) and his colleagues make for health policy makers when considering employment-related health policy, health policy makers and advocates of education-related healthy public policy should urge "institutional innovations within government that will ensure that health consequences are not left out of decision-making processes" (p. 17). The value of this change would be to refocus the attention of those in the education sector away from the traditional measures of their success towards a broader focus that includes health consequences.

Application of Learnings to Other Health Promotion Issues

Based on Kingdon's (1995) ideas about the policy process, health promoters should think of a number of things when looking to implement a healthy public policy. Kingdon attests that a set of conditions must be seen as a problem worthy of attention before it will find its way onto the policy agenda. People seeking a policy intervention on an issue must find a way to communicate to decision makers that the indicators defining the conditions demonstrate that a problem exists and that the consequences of the problem are at odds with the values of the stakeholder community. Therefore, when a problem emerges, consider all of the indicators that are related to the problem. If the data has not been collected in a manner which is useful to framing the problem, further research or data analysis should be conducted to tease out the data into a format that will support it. Remember that it is not just the conditions that identify a problem but it is the conflict of values and beliefs in the community that make it a problem for which action is needed. An understanding of the values and beliefs of the decision-makers and the key stakeholders who will be involved in dealing with the problem is necessary. Health promoters must be prepared to reframe the problem. This is more likely to lead to the desired outcomes than attempting to change the values and beliefs of other stakeholders. Research should be conducted so that decisions are not based on assumptions about the ideas held by key influencers. Kingdon also advises that the problem should be clearly defined and salient to decision-makers.

Kingdon describes the choice of a solution as a form of natural selection. This entails the solution with the best fit and the fewest barriers eventually rising from amidst all possible solutions. The solution is improved by being discussed and debated among a community of experts over a period of time. Therefore, when the first evidence that a solution could be a successful intervention appears, begin promoting it. As in the case of DPAI, it could take years or decades for the streams to become coupled. Increasing knowledge of the solution among players in the policy environment will increase the likelihood of it being adopted when the time is right. Make sure that benefits will accrue to those responsible for implementing the solution. This may require that the appropriate measurements and evaluations are done to give evidence of these benefits. Seek out evidence supporting the implementation of the solution that will convince stakeholders of its effectiveness. This was the case with DPAI. Research conducted between the time the idea was first conceived and the time it was implemented added support for the idea until it reached a critical mass that was impossible to refute. If the evidence is not available, encourage research in the area to gather it. Practitioners can be encouraged to take on trial projects to provide a situation to gather the evidence. However, it is critical to involve researchers throughout the pilot so that the evidence is properly gathered.

Circulate the proposed solution within the communities of interest to gather feedback and input about the solution. This information will be valuable in refining the solution so that it is perceived as feasible to implement by all concerned. As Kingdon points out, the creation and refinement of a solution can take place concurrently with activity in the other streams. The development of a solution is the stream in which practitioners and advocates have the most opportunity to seek change and move the processes forward.

Identifying or recruiting a champion or policy entrepreneur to maneuver the issue through the political stream can be beneficial. Kingdon (1995) finds policy entrepreneurs to be the single most influential individual in coupling the three policy streams. If no such person has taken on the issue, seeking out an individual who already has the power to make the necessary changes is an ideal place to start. Lyle Oberg as Minister of Learning had such power to enact DPAI. If this is not possible, then others in the community can be approached, beginning with those closest to the power-holder. In the DPAI situation, this may have been the deputy minister of health or an influential cabinet colleague with beliefs sympathetic to the issue.

Health promoters must always be prepared to act at the opening of a policy window whether it is predictable or unpredictable. Pal (2001) describes predictable windows as those that open at the time of elections, budget speeches as well as a change in cabinet ministers. Advocates seeking to advance their cause need to watch for the windows to open as a signal to act. As described in the case of DPAI a cabinet shuffle was the opening of a policy window. The emergence of a problem which is perceived as one which needs to be addressed opens what Pal calls the problem window. As discussed above, advocates seeking action on an issue can play a role in communicating the conditions as a problem. By doing so, health promoters can, in effect, create and then open a policy window.

If the WTS solution were linked to the environmental movement as described above, a cabinet shuffle or an election putting a politician with strong beliefs about environmental protection into a key ministry could have similar positive results. A problem window, such as the recognition that obesity was becoming an epidemic, identifies another opportunity to move forward with an issue. If this problem window were to remain open, it could also be used to advance walking to school. Or, changes which add more urgency to the global warming issue could open a problem window for WTS. The other type of window to watch for is the political window. If an organized political force championing environmental issues emerges in Alberta, political pressure from this group may open a political window for WTS. Alternatively should a politically connected business person start a business of offering a Walking School Bus service to schools and boards, WTS could be adopted.

Strengths of the Study

The sampling technique applied in this study resulted in participation from individuals with a great deal of experience and expertise regarding physical activity in the school setting and a depth of understanding of the relevant policy issues. With input from individuals ranging from ministers of the crown to experienced professionals to parents with children currently in the education system, the data collected has breadth which strengthens the findings. The choice of in-depth interviews and review of primary and secondary published and grey-area literature as the primary method employed for data collection allows for an increased depth of understanding of the phenomenon.

Limitations of the Study

The variations between schools and classes make it appear that some educators value physical activity far less than others however, none of the study participants expressed negative attitudes towards physical activity in the schools. This likely occurred because a request to participate in a discussion about physical activity was more appealing to those who held positive beliefs about physical activity. The sampling technique used selected individuals with knowledge about and consequently, interests in, physical activity.

Researchers conducting studies within the school system in Alberta are faced with restrictions regarding the times of the year at which research can be conducted. Schools and education-related organizations generally have a moratorium on conducting research between June 1 and October 1 of each year and during the month of December. This leaves only six months of the year available broken into a two-month period in the fall and four months in winter/spring. Individuals pursuing research in the education sector in Alberta should be aware of these restrictions when planning their research.

A limitation of collecting data at one time only was that participants had difficulty recalling the actual processes they followed in developing policy. This was most troublesome at the individual school level where the decisions are made quite informally within working groups where no records are kept.

Conclusion

Walk-to-school initiatives as policy solutions to insufficient physical activity of children and subsequent obesity face many barriers to adoption and implementation. The problem of insufficient physical activity of children is recognized but the solution of

WTS has been trumped by the institutionally-friendly option of DPAI. DPAI is a start, but the question remains if it will instill a lifelong desire for physical activity that will maintain health in the population once they are no longer in school.

Our built environment, typified by urban sprawl and our cultural affinity for cars and driving are making it more and more difficult to maintain our health through daily utilitarian exercise. The loss of our ability in recent years to walk or bicycle to school, to shops, and other places we visit regularly is becoming recognized as an issue of concern by Canadians. Walkable communities are gaining resurgence in popularity as people find they are spending more time than they want traveling in their community by car. Active transportation is dreamed of but is far from being feasible for most. Retrofitting our cities to increase walking opportunities will take many decades. But we are seeing a start. Urban sprawl has been recognized as a concern of Canadians and the Government of Canada will be spending up to $225 million to help conservation groups fight urban development by acquiring private lands considered ecologically sensitive (Brieger, 2007). Families choosing neighbourhood schools could reduce car time for their children and improve health and the environment by doing so. But will the idea that walking is better than driving ever supersede our attachment to automobiles? Societal changes will be required if this is to happen. Walking to school has the potential to be one of the first places where this could occur. More so than a move away from big-box retail on the outskirts of urban centres, schools exist and are still being built in residential communities.

Frumkin et al. point out that policies at the highest levels of government in a variety of sectors are supporting our driving habit. Governments and citizens alike do not realize the extent to which the auto-centred society has been created and supported by the subsidy of roadway development through taxes and conversely the retardation of public transit through inadequate funding. Educating the public about this situation could initiate a change in beliefs. An auto-centred society is a social construct and it can be changed, though it will not be easy. According to Lawrence Frank, "it will be difficult to construct a policy edifice that encourages the creation of physical-activity-friendly environments." But what has been done can be undone. The policy environment that is currently posing challenges for our health can be restructured. Increased knowledge and understanding of the policy processes affecting healthy public policies will support work toward a health promoting policy environment.

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Health Research Ethics Board

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Appendix 1

ETHICS APPROVAL FORM

Date: January 2005

Name of Applicant: Dr. John Church

Organization: University of Alberta

Department: Centre for Health Promotion Studies
Department of Political Studies, Faculty of Arts

Project Title: **Public Policy Processes and Getting Physical in Alberta's Urban Schools**

The Health Research Ethics Board (HREB) has reviewed the protocol for this project and found it to be acceptable within the limitations of human experimentation. The HREB has also reviewed and approved the subject information letter and consent form

Special Comments:

Glenn G. Griener
Dr. Glenn Griener, PhD

Chair of the Health Research Ethics Board
(B: Health Research)

MAR 01 2005
Date of Approval Release

File Number: B-200105

UNIVERSITY OF ALBERTA

Capital Health

CARITAS HEALTH GROUP

Appendix 2

Information Letter

Dear (name):

I am writing to invite you to participate in a research study related to the completion of my Masters Degree in Health Promotion Studies. The study is called Public Policy Processes and Getting Physical Activity in Alberta's Urban Schools. The study will look at policy processes within the education system to identify the facilitators and barriers to efforts in Alberta to effectively increase levels of physical activity in school-aged children, towards addressing the childhood obesity issue. Of particular interest are initiatives promoting active transportation.

If you participate you will be involved in research that I believe is in an area of interest to you. It will be a chance to give input into work that will contribute to an understanding of how the public policy process helps or hinders efforts to improve activity levels and promote healthy body weights in children.

You are invited to participate in a one-on-one interview during which you will be asked questions regarding your experiences and perceptions of:

- how problems come to the attention of policymakers
- how policy options are formulated, and
- how public decision makers adopt a particular course of action

relating to physical activity and childhood obesity in Alberta schools.

The study will involve a small sample. This means that informed people reading the report from the study may be able to identify individual participants. Recognizing the risk that a small sample size poses, information gathered through interviews will be presented in aggregate or summative form only. Individual participants will not be directly quoted unless they have reviewed the quote and have given written permission to do so. The names or organizational titles of individual participants will not appear in any published documents. Information gathered from individual participants through interviews will be coded so that only the researchers will be aware of original sources.

If you participate in the study it will take a total of about 2 ½ hours. Approximately 1 ½ hours will be spent in the interview session. If you choose, a few weeks after the interview, a transcription of the interview will be sent to you. You will have the option to review the transcription and mark any errors you see in the information or remove any comments with which you are uncomfortable. This may take you approximately one hour.

All information will be held confidential (or private) except when professional codes of ethics or legislation (or the law) requires reporting. According to the research ethics requirements of the University of Alberta, the information you provide will be kept for at least five years after the study is done. The information will be kept in a secure area (i.e., locked filing cabinet). Your name or any other identifying information will not be attached to the information you give. Your name will also never be used in any presentations or publications of the study results.

The information gathered for this study may be looked at again in the future to help us answer other study questions. If so, the ethics board will first review the study to ensure the information is used ethically. As part of this process, you will be contacted to obtain additional consent.

You do not need to participate in the study. If you chose to be in the study you can withdraw at any time. You can refuse to answer any question you feel you do not want to answer. Only the researcher and two people working with her will know you have participated in the study.

Should any new information become available that is relevant to your decision to continue or withdraw as a participant from this study, you will be made aware of it in a timely manner.

If you would like to discuss this study with someone not directly involved in the study please contact:

Dr. Kim Raine
Centre for Health Promotion Studies
5-10 University Extension Centre
8303-112 Street
Edmonton, Alberta T6G 2T4
Phone: (780) 492-4039
Fax: (780) 492-9579

To acknowledge that you have read and understand this letter, please initial below.

Participant's Initials: __________ Researcher's Initials: _________

Researcher:

Cathy Gladwin
M.Sc. Candidate
Centre for Health Promotion Studies
University of Alberta
ph: 780-439-5762
e-mail: cgladwin@ualberta.ca

Appendix 3

Consent Form

Participation Consent Form

Title of Project

Public Policy Processes and Getting Physical Activity in Alberta's Urban Schools.

Part 1: Researcher Information

Name of Principal Investigator: Dr. John Church
Affiliation: Centre for Health Promotion Studies
Contact Information: 492-9054 john.church@ualberta.ca

Part 2: Consent of Subject

	Yes	No
Do you understand that you have been asked to be in a research study?		
Have you read and received a copy of the attached information sheet?		
Do you understand the benefits and risks involved in taking part in this research study?		
Have you had an opportunity to ask questions and discuss the study?		
Do you agree to the use of an audio tape recorder during the interview?		
Do you wish to have the opportunity to review the transcription of the interview and correct any errors and remove anything with which you are not comfortable? If you answer yes to this question will have a copy of the transcript e-mailed or faxed to you. You will be provided with sufficient time to review the document and reply with any changes.		
Do you understand that you are free to refuse to participate or withdraw from the study at any time? You do not have to give a reason.		
Has the issue of confidentiality been explained to you? Do you understand who will have access to your records/information?		

Part 3: Signatures

This study was explained to me by:

____

Date: ______________________________________

I agree to take part in this study. Signature of Research Participant: ____________________ Printed Name: ____________________
Witness (if available): ____________________ Printed Name: ____________________

Appendix 4

Interview Guide

Agenda Setting: How problems come to the attention of decision-makers

A1. Has increasing physical activity for school-aged children been discussed by your organization?

A2. When did increased physical activity for school-aged children first come to the attention of your organization?

A3. Who raised the issue with your organization (internal source or external source)?

A4. How was the issue characterized and by whom?

A5. What does your organization see as the cause of insufficient physical activity for children?

A6. Were there competing perspectives on how the issue was characterized?

A7. To what extent has it been linked to the larger issue of childhood obesity?

A8. Have the two issues always been linked or has the linkage occurred more recently?

A9. What do you think has led to the increased linkage between the two issues?

A10. If increased physical activity in school-aged children and childhood obesity have not always been linked as issues, how was the issue (increased physical activity for school-aged children) previously characterized?

A11. Why did your organization decide it needed to do something about physical activity?

Policy Formulation: How policy options are formulated

B1. When did your organization come to see increasing physical activity for school-aged children as a problem it needed to do something about?

B2. What range of actions [illegible]ncrease physical activity was considered at the time?

B3. Where did the options come from (other jurisdictions, specific interest groups)?

B4. Who within your organization developed the options?

B5. Where any of the options competing with or at odds with one another?

B6. Who presented the options and in what form (formal briefing, private meeting, public forum, media release…)?

B7. Did your organization have prior experience with any of the options?

B8. Were any of the options based on work from other jurisdictions?

B9. Have any active transportation to school initiatives been considered? If not, why not?

B10. Were any of the options based on successful solutions to other problems?

Decision Making: Why public decision makers adopt a particular course of action or non-action, and the criteria upon which this choice is based

NB: C1 through C5 to be posed to all organizations except Alberta Learning:

C1. What did your organization choose to do?

C2. Why did it choose to respond in that way?

C3. Why did you reject other options?

C4. Did your organization have knowledge of this solution working previously or in other jurisdictions?

C5. How did government action/inaction contribute to your organization's response?

C6. If an active transportation initiative such as the Walking School Bus program was considered, why was it not adopted?

NB: C7 through C10 to be posed only to Alberta Learning:

C7. What is Alberta Learning seeking to achieve through the daily physical activity program?

C8. Did this idea for DPAI originate in Learning or Health, or somewhere else?

C9. Has a similar project been successful elsewhere?

C10. Given that the current evidence suggests that physical education classes don't provide enough physical activity for health, why did Alberta Learning choose Daily Physical Activity rather than other policy options such as active transportation or WSB?

C11. Is Daily Physical Activity the only initiative being pursued to increase physical activity for school-aged children?

C12. What other initiatives relating to the larger issue of obesity are targeted towards school-aged children?